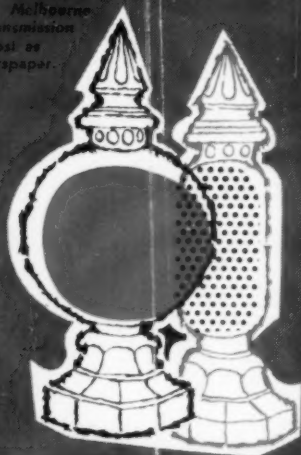


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THE
AUSTRALASIAN
JOURNAL
OF

PHARMACY

THE OFFICIAL JOURNAL OF THE
ASSOCIATED PHARMACEUTICAL
ORGANISATIONS OF AUSTRALIA

December 30, 1961 New Series: Vol. 42, No. 504—Old Series: Vol. LXXVI. No 912

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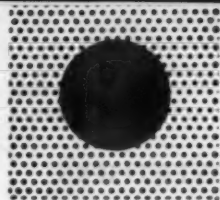
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DECEMBER, 1961

CONTENTS

	Page
Editorial	1271
The Month	1272
Science Section	1275
Medical Section—Article No. 8	1292
Acquiring a Pharmacy—A Planned Approach	1294
The Art of Packaging in Commerce and Nature	1302
How to Fight Drug Addiction	1309
Guide for Manufacturers and Advertisers in Advertising of Proprietary Medicines	1311
Photographic Section	1315
Prescription Proprieties and New Drugs	1316
Perfumes and Extracts of the Past and Present—Article No. 14	1319
Overseas News	1323
Women's Section	1324
New Books	1325
Trade Notes	1328
Student Activities	1330
News and Reports—	
Commonwealth	1333
Tasmania	1335
New South Wales	1339
Victoria	1347
Queensland	1358
South Australia	1362
Western Australia	1365

OFFICIAL ANNOUNCEMENTS

PHARMACY BOARD OF NEW SOUTH WALES

PHARMACY QUALIFYING EXAMINATION

The next Qualifying Examination will commence at the University of Sydney on Wednesday, 31st January, 1962.

TIME TABLE

Pharmaceutics I—Wednesday afternoon, 31st January, 1962.

Prescription Reading & Posology—Thursday afternoon, 1st February, 1962.

Pharmaceutical Arithmetic—Friday morning, 2nd February, 1962.

Pharmaceutics II—Friday afternoon, 2nd February, 1962. **Practical Work** commences on Monday, 5th February, 1962.

Entry forms are available from the Board only.

Fee for part or whole of the Examination is £3/3/-.

Applications close with the last post on 2nd January, 1962.

Watch this column for further announcements.

P. E. COSGRAVE
(Registrar)

7th Floor,
19 O'Connell Street,
Sydney, N.S.W.

PHARMACEUTICAL SOCIETY OF VICTORIA

ANNUAL COUNCIL ELECTION 1962

In pursuance of the provisions contained in the Articles of Association of the above Society, it is hereby notified that an ELECTION will be held to fill FOUR ORDINARY VACANCIES on the Council and to elect an AUDITOR on the fifth day of March, 1962. The retiring members of the Council are PAULINE AGNES CRAWFORD, FREDERICK WILLIAM JOHNSON, JOHN RUDELHOFF OXLEY, CHARLES PENROSE ACTESON TAYLOR, and the retiring Auditor is ROBERT HAYDON MORRISON.

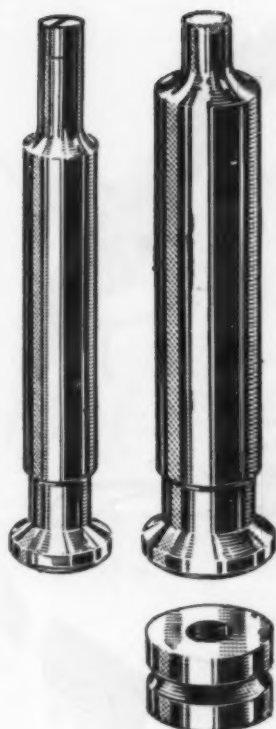
Monday, the twelfth day of February, 1962, has been appointed as the day of nomination. Nomination papers of candidates must be lodged, or delivered by post, at the office of the Society, 381 Royal Parade, Parkville, before 4 o'clock in the afternoon of the day fixed for nomination. In the event of more candidates being nominated than there are vacancies, a POLL will be taken on the fifth day of March, 1962.

J. I. RICHARDS,
Returning Officer.

Melbourne,
December 5, 1961.

INDEX TO ADVERTISERS

Page	Page
Abbott Laboratories Pty. Ltd. 1317	Johnson & Johnson Pty. Ltd. 1313-1321-1338
Aloma Pty. Ltd. 15	Kodak (A'asia) Pty. Ltd. 1289
Amalgamated Insurance Ltd. 9	Koko Maricopas Co. Pty. Ltd. 1340
Amolin Laboratories 1355	Levenson Weighing Machine Co. Pty. Ltd. 12
Andrews Laboratories Pty. Ltd. 1308	Manesty Machines Ltd. 3
"Australasian Journal of Pharmacy" 9	May & Baker (Aust.) Pty. Ltd. 1331
Ayrton, Saunders & Co. Ltd. 5	Merck, Sharp & Dohme Pty. Ltd. 1322
Barker & Son Ltd., Robert 9	Muir & Neil Pty. Ltd. Supplement iii
Beckers Pty. Ltd. 1338	National Cash Register Co. Pty. Ltd., The Cover 2
Boots Pure Drug Co. (Aust.) Pty. Ltd. 1285-1314	Nestle's Food Specialities (Aust.) Ltd. 15
Boston Shopfittings Pty. Ltd. 1361	Nicholas Pty. Ltd. 8
British Medical Laboratories Pty. Ltd. 1304	Official Announcements 2
Budgeon's Pty. Ltd. 12	Parke, Davis & Co. Ltd. Cover 3
Burroughs Wellcome & Co. (Aust.) Ltd. Cover 4	Pearce & Co. Pty. Ltd., Wm. 1334
Cambridge Laboratories 1357	Pharmacy Board of Victoria 1352
Chemists' Account Service 1345	Pfizer Pty. Ltd. 1303
Chrysler Aust.-Airtemp. 6	Plastic Price Ticket Co. (Aust.) Pty. Ltd. 1350
Classified Advertisements 1312	Rocke Tompsitt & Co. Ltd. 1332
Colgate-Palmolive Pty. Ltd. 1350	Royco (Aust.) Pty. Ltd. 1329
Colonial Sugar Refining Co. Ltd. 1298	Salmond & Spraggon (Aust.) Pty. Ltd. 1363
Commonwealth Drug Co. 1344	Salter & Co. Ltd., G. 11
Commonwealth Serum Laboratories 1349	Sanax Co., The 1352
Crown White Coats Pty. Ltd. 1346	Scott & Bowne (A'asia) Ltd. Cover 1
Dalton & Co., E. 1300-1301	Searle & Co. Ltd., G. D. 4
Delany & Co., William 3	Sera Pty. Limited 1326-1327
De Vanta Chemical Co. 16	Sigma Company Limited Supplement i
D.H.A. Ltd. Supplement ii	Squibb & Sons 1297
Dormay Co. Pty. Ltd. 1353-1357	Sterling Pharmaceuticals Pty. Ltd. 1281
Edinburgh Laboratories 13	Toppin & Sons, R. D., Pty. Ltd. 1354
Evans Medical Australia (Pty.) Ltd. 1282	Trade Press Pty. Ltd. 14
Ezi Change Signs 1343	Vincent Chemical Co. Pty. Ltd. 10
Farran Co. Pty. Ltd. 1364	Warner & Co. Pty. Ltd., W. 1337
Fawns & McAllan 1307	Wholesale Drug Co. Ltd. 1341
Geigy (A'asia) Pty. Ltd. 1290	Wilson Gerber Pty. Ltd. 1342
Glaxo Allenburys (Aust.) Pty. Ltd. Supplement iv	Witzig & Co. Pty. Ltd., P. 1340
G.P. Pty. Ltd. 1359	Zeal Ltd., G. H. 14
Greenhalgh's Pty. Ltd. 16	
Gregory Steel Products Pty. Ltd. 1353	
Hanimex Pty. Ltd. 1318	
Harmour & Heath Pty. Ltd. 12	
Harvey Pty. Ltd., H. F. 1345	
Heinz Co. Pty. Ltd., H. J. 1332	
Imperial Chemical Industries of A. & N.Z. Ltd. 1286	



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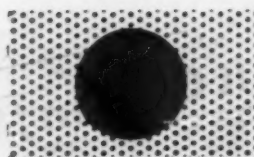
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The new town of Kooragang, on the Ord River, has so impressed a South-born journalist and housewife, who saw it there, that she considers it has the best layout of any town in W.A.

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JULY 20, 1961.

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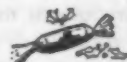
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Christmas Greetings



On behalf of the Directors, the Board of Management, the Manager, Editor and staff of the Journal, I extend to readers throughout the Commonwealth and overseas good wishes for Christmas and peace and prosperity in the New Year.

I wish also to take this opportunity of thanking our advertisers, our contributors, overseas and local correspondents, members of the local Committees in each State, and our staff, for their very valued co-operation and interest throughout the year, without which the success we have achieved would not have been possible.

NORMAN C. COSSAR,
Chairman of Directors.



news of
pharmaceutical
events
at home
and abroad

Poison Prevention Week

The Pharmacy Board of Victoria has announced its intention of seeking co-operation of all chemists and distributors of poisons, for one week in February, to concentrate on warning purchasers of poisons and poisonous substances and preparations of the necessity for keeping such substances out of the reach of children.

Under the heading "One Thousand Children Poisoned," the Board draws attention to the appalling number of accidental poisonings which occur in one State alone every year.

In the hope that the concerted action of distributors of poisons may help to reduce the toll, it is calling for co-operation in the manner indicated for the week commencing February 18, 1962.

Of interest in this connection is a notice in the October issue of the Journal of the American Pharmaceutical Association, that a joint resolution was passed recently authorising the President to proclaim a National Poisons Prevention Week in the third week of March each year.

Advertising of Proprietary Medicines

A Model Code

The National Health and Medical Research Council, which operates under the jurisdiction of the Commonwealth Department of Health, has issued a voluntary advertising Code to be used as a guide to manufacturers and advertisers in the advertising of proprietary medicines. This Code, which is published elsewhere in this issue of the Journal, is intended only as a guide and has no legal significance.

In a recent statement, the Minister for Health, Dr. D. A. Cameron, said that agreement on the terms of the Code had been reached by the National Health and

Medical Research Council, publishers, advertising agents, and the pharmaceutical industry.

The new Code would be substantially in line with the authority exercised by the Commonwealth over radio and television advertising by means of the Broadcasting Act.

Dr. Cameron explained that newspaper and other published advertising was subject only to State control.

The essential features in this new document agreed upon by all parties were:

1. That false or misleading claims should not be published.
2. That exaggerated claims or use of unacceptable words or illustrations would similarly be precluded, and that money back guarantees would be banned.

Physicians' Samples

The use and disposal of samples issued to physicians and pharmacists by pharmaceutical houses in the United States has become a very live subject following disclosures overseas of re-packaging and diversion to the drug markets of such samples.

The Journal of the American Pharmaceutical Association, in its September, 1961, issue, deals with the subject in an editorial article under the caption "Samples and Principles."

This Journal informs the members of the Association that the American Pharmaceutical Association and the National Association of Boards of Pharmacy have co-operatively worked with the Federal Food and Drug Administration in distributing more than 100,000 copies of the manual for pharmacists—"the R Legend."

The editorial states that the pharmaceutical profession is indebted to FDA for the manual, which pro-

vides chemists with a much-needed reference to many FDA policies involving professional practice. He quotes the following, concerning samples:—

Q.: What should a pharmacist do with sample packages which may come into his possession?

A.: The pharmacist can give them to physicians; or he can keep them in the original manufacturer's package and use them in filling prescriptions.

But there has been a change in outlook, and on July 12 the FDA issued the following news release:

"A practice of not using physicians' samples to fill prescription (sic) and the use only of drugs the integrity of which is beyond question in pharmacy practice."

FDA inspectors, it is said, had offered to implement the recommendation by witnessing the destruction of samples of prescription legend drugs which they found in the possession of pharmacists.

The American Pharmaceutical Association has taken exception to this "quasi-regulatory" enforcement activity, and protested strongly to FDA. Its spokesman said at a meeting with FDA officials that the Association could not agree with the revised reasoning that samples in their original containers are misbranded if and when they are in the possession of a duly licensed practitioner.

The writer of the article in the Journal expresses the opinion that it should not be necessary to destroy valuable life-saving drugs merely to prevent re-packaging operations.

Pharmaceutical Crisis in England

Under the caption "A Pharmaceutical Crisis," "The Lancet" reports that since 1948 until July of this year neither the public nor the cognate professions had heard much about the pharmacists' payment from the National Health Service. The article goes on to reveal that a few months ago the Chemists' Contracting Committee had stated that pharmaceutical chemists, including companies and co-operative shops, might withdraw in mass from the N.H.S. if negotiations with the Ministry of Health broke down.

Now that the most recent suggestions from the Ministry in regard to remuneration are found to be unpalatable and unacceptable, it appeared that English chemists would give the three months notice required for their withdrawal from the pharmaceutical service.

The following extracts from the article are of special interest:

Not only are the proposed terms said to be unacceptable but a matter of principle is also at stake. The Ministry has always regarded payments to chemists as an overall figure, although it consists of two factors—a dispensing fee (at present 14.57d. per average prescription) and an "on-cost" of 25% of the wholesale value of the medicaments or appliances dispensed; when the service began. This second figure was 30%, but it was cut to 25% ten years ago.

Pharmaceutical opinion has been hardening steadily in favour of dissociation of these two factors, and earlier this year pharmacists lodged a claim for a professional fee to yield an average of 2/- per prescription with the on-cost maintained at 25%.

Since the present settlement was reached, based on 1956 figures, there has been a continuous rise in ingredient values and consequently gross "on-cost" has been higher than forecast by the Ministry's statisticians. They believed, as Sir Bruce Fraser told the Committee for Public Accounts, that chemists would receive a net profit of 2½d. per prescription after all expenses had been met, but this turned out to be close to 4d. in 1957.

The present offer, according to the Ministry estimates, would show about 4½d., and is, in the official view, just, reasonable and indeed generous, although it is admitted contractors' expenses have been rising also. The dispensing fee would be raised to over 17d. per prescription, but the overall figure for "on-cost" would be brought down to 18% by introducing differential payments. The "on-cost" on the first 500 prescriptions dispensed each month would remain at 25%, but for the next 250 it would be 20%, and for the remainder only 12½%.

Stricter Control on Amphetamines and Barbiturates

The Journal of the National Association of Retail Druggists of the United States reported recently that a new Amphetamine-Barbiturate Bill has been introduced in Congress.

This legislation is designed to place amphetamines and barbiturates under tighter control.

The Bill has three main provisions:

- (1) Manufacturers, compounders and processors of the drugs would be required to list their names and business addresses with the Secretary of Health, Education and Welfare.

- (2) Every person (including manufacturers, wholesalers and retailers) who sells, delivers or otherwise disposes of amphetamines and barbiturates, would be required to keep a record of each transaction, showing the amount involved and the name and address of the purchaser
- (3) The maximum fines for infringement would be \$2000 and two years imprisonment for the first violation, and heavier penalties for subsequent violations.

Similar provision was made in legislation passed in Canada.

Safety Closure for Medicine Bottles Recommended in Canada

It has been reported that because of the high incidence of accidental poisoning of children, the Canadian Medical Association intends to recommend to the Food and Drug Directorate of the Department of National Health and Welfare that legislation should be introduced to require the use of safety caps on medicine bottles.

Commenting on this, the Health League of Canada, in its publication "Health," states that as there may be some difficulty in designing a satisfactory safety cap, it may be necessary to limit the legislation to those medicines in common use, or those associated with poisoning in children.

The Canadian Medical Association is convinced that the number of tragic accidents can be reduced by such legislation.

Pest Control Review Board

Agricultural and horticultural poisons, pesticides and similar substances are under close scrutiny in many countries, and partial or total bans on the use of the more dangerous substances are receiving serious consideration.

"Chemical and Engineering News" reports that in the United States a special body has been established to consider these problems. The new body is a Federal Pest Control Review Board. Its function will be to review pest control programmes of Federal agencies to ensure that these programmes serve the national interest.

The Board will appraise programme objectives to ensure that the most effective, economical and safest controls are followed. In particular, it will consider possible hazards to human health, to livestock and crops, and to fish and wild life resulting from the use of pesticides.

Personnel of the Board will include representatives of a number of Federal Departments.

Alcohol and Drug Addicts (Treatment) Bill

The Honourable Sir Lyell McEwin (Chief Secretary) introduced in the South Australian Legislative Council on October 18, a Bill for an Act to make provision for the treatment, care and rehabilitation of persons addicted to the consumption or use of alcoholic or intoxicating liquors or certain drugs to excess. He said that the object was to make provision for the treatment, care and control of persons so addicted.

For a considerable time, the problem of the alcohol and drug addict has been causing increasing concern throughout the world. Several countries had provided special centres for the treatment of such addicts, and the treatment carried out at those centres had contributed largely to the cure and rehabilitation of addicts.

It was now well recognised that imprisonment was not the answer to the problem.

One clause in the Bill made provision for the admission to alcoholic centres of any addict upon application personally or by a relative, an adult probation officer or a member of the Police Force, supported by a recent medical certificate.

Another clause provides that upon conviction of a person by a Court of an offence of which drunkenness is an element or which was committed by a person while drunk or under the influence of a drug, the Court might, in lieu of or in addition to any sentence it might impose, release the person on the condition that he undergoes treatment at a centre for a period not less than six months and for a period not more than three years, remaining under the supervision of a probation officer.

Clause 35 provides that it would be an offence to supply an alcoholic or intoxicating liquor or any specified drug to a patient or person committed to a centre or conditionally released by a Court under the legislation with a penalty of £100, but such supply on the advice or authority of a medical practitioner or ignorance of the fact that the person supplied was a patient or a person so committed or released would be a good defence.

SCIENCE SECTION



EDITED BY A. T. S. SISSONS, B.Sc. F.P.S.

ARTICLES

- Skin Medication
- Phase Solubility Analysis in Quality Control
- Pharmaceutical Control in Britain
- Chlorhexidine Ophthalmic Vehicle
- Radiation Sterilisation in Britain
- Expansion of Chemical Industry in Israel
- Chemistry in the Service of Medicine
- General Medical Council

SKIN MEDICATION

Symposium. British Pharmaceutical Conference

At the Portsmouth Meeting of the British Pharmaceutical Conference, September, 1961, a session was devoted to "Skin Medication." Three opening papers were read by Dr. F. J. Ebling, Dr. A. Jarrett and Mr. J. W. Hadgraft.

These were reported in abstract as follows in *The Chemist and Druggist*, September 30, 1961:—

Topical Medication in Relation to Skin Physiology

F. J. Ebling, M.Sc., Ph.D.

The rationality of topical therapy requires not only that the medicament should be effective, but that local application of it should be better than systemic administration. Though the variety of traditional topical medicaments is large, their efficacy is usually questionable and their mode of action, if any, unknown. Indeed, many preparations would probably be more beneficial as bland dressings with their supposed "active" ingredients left out. The necessity of water, though not too much of it, to the cornified epithelium is undoubted, particularly if the water-absorbing properties are reduced in skin disorders.

Adrenocorticoids have within the past ten years proved the most effective group of substances yet discovered for the treatment of skin disorders. More than seventeen diseases have been listed in which oral or intracutaneous administration of such compounds was effective. In only three, namely, atopic dermatitis, nummular eczema and anogenital pruritis, was topical application equally good, though there were also variable responses in other "eczematous" disorders. Nevertheless, such conditions account for about half of all cases of skin disease.

Though cortisone is without significant action, hydrocortisone is effective as a topical agent. Fluorohydrocortisone, in one-tenth of the concentration, is as effective as hydrocortisone. More recently other synthetic corticoids, of which triamcinolone appears to be the most potent, have been introduced for topical therapy.

Since steroids, including cortisone and hydrocortisone,

are readily absorbed by intact skin, the difference between the effects of cortisone and hydrocortisone is surprising. One possible explanation for this is that, at skin sites from which the barrier is removed, the absorption of hydrocortisone free alcohol but not of cortisone is increased. Hence hydrocortisone may more readily pass into skin in which the barrier has been damaged by inflammation. Other possibilities are that cortisone is metabolically inactivated more quickly than hydrocortisone, or that the action of the hormone may depend upon intermediate metabolic products which are readily formed in the skin from hydrocortisone but not from cortisone.

How do these substances work? On a biochemical basis we do not know. But there are many experimental results indicating how various substances may affect skin.

In psoriasis there is no granular layer to the epidermis and the cells of the *stratum corneum* retain their nuclei. Keratinisation is abnormal; there is an unusually high concentration of sulphhydryl groups, suggesting that the break-down and resynthesis of unfolded polypeptide chains has been incomplete, and the high amount of phospholipid probably is evidence of incomplete utilisation of the high energy system.

The question of what factors control epidermal mitosis and what substances influence it is of importance. Oestrogens stimulate mitosis in the epidermis of the mouse but not in the rat; it is interesting, however, that they seem to reduce epidermal thickness in the latter, suggesting that cell life is diminished and the rate of cell loss increased. Hypophysectomy results in significant thickening of the epidermis, producing a well-marked granular layer. This thickened epidermis can be reduced by oestrogens. Androgens have been shown to stimulate epidermal mitosis in both animals.

Vitamin A causes hypertrophy of the epidermis in mouse skin by causing rapid epidermal proliferation.

Many agents inhibit epidermal cell division. Prominent are adrenaline and adrenal steroids, such as cortisone and desoxycorticosterone acetate. Attempts to treat psoriasis by systemic or topical application of adrenocortical steroids were not initially entirely successful. The synthetic corticoid triamcinolone seems to show more promise than ACTH or prednisolone.

Psoriasis has been treated successfully with a combination of local vitamin A, to promote formation of a

granular layer, and systemic or topical triamcinolone to reduce epidermal mitosis. It may still be premature to regard the treatment as specific, though a whole range of unrelated compounds found effective may act in a similar way.

Sebaceous Glands

Many factors have been alleged to affect sebaceous activity, but the overriding importance of steroid hormones has been shown both in animal experiments and in human trials. Androgens, systemically administered or topically applied, cause enlargements of the sebaceous glands of animals. The effect seems to involve an increase in cell size, as well as in cell division. Enlargement of the sebaceous glands by testosterone requires the presence of the pituitary which it has been proposed contains a "sebotropic" factor. The possible effects of progesterone are subject to some dispute. Andrenocorticoids have been reported to reduce the size of the glands when applied locally, as have oestrogens.

These facts might suggest a clear endocrine etiology for skin disorders, such as acne vulgaris and seborrhoea, which involve enlargement of the sebaceous glands, as well as a rational approach to systemic or topical therapy. Some authors have proposed that the essential cause is an increased androgen: oestrogen ratio. Moreover, the demonstration that androgens are without effect in the absence of the pituitary suggests that a hypophyseal hormone may be involved in the etiology of acne. The condition may perhaps occur in the male because a rising production of androgens during adolescence overlaps some hypophyseal activity which later abates. Others have suggested that adolescent seborrhoea and acne in the female are the result of luteal progesterone and not of adrenal androgens. Since in experimental animals progesterone has been shown to enlarge the sebaceous glands only in relatively large doses, we cannot be sure that its action is not dependent on prior conversion to androgens. If this were so, a direct role of progesterone in the etiology of female acne would be precluded.

In many skin diseases inflammation occurs in the dermis, and similar changes can be brought about by such diverse stimuli as bacterial invasion, thermal injury and frostbite. Though steroids have been reported to have many different dermal effects, there is little precise information on their mode of action. There is evidence that the mast cells are inhibited. It has been suggested that cortisone suppresses capillary permeability due to the liberation of polypeptides ("leukotaxine"), and that adrenocorticoids act generally, not by inhibiting the production of the inflammatory stimulus, but by interfering with its action. There are two hypotheses about the mode of action of cortisone and hydrocortisone on capillary permeability. Either they prevent the antigen-antibody combination from exerting its effect on the capillary wall, or they cause a general depression of the reactivity of the capillary wall to stimuli which increase permeability. Evidence suggests that there is some truth in both hypotheses. Possibly salicylates, also, act by preventing antigen-antibody combinations from exerting their effects on the capillary wall.

Conclusions

The use of steroids, especially those of the adrenal cortex or their synthetic analogues, is opening up new possibilities of local therapy. A decade or so ago the skin could reasonably have been regarded as a neglected organ. This is no longer true; skin physiology and experimental dermatology, as well as steroid chemistry are developing rapidly and we may expect further improvement in skin therapy. (Department of Zoology, Sheffield University.)

SKIN MEDICATION

A. Jarrett, M.B., F.R.C.P.

Psoriasis is a typical example of abnormal keratinisation of the parakeratotic type. Countless remedies have been recommended for its treatment. Of the more effective local applications one may list the following: Crude coal tar 1-10 per cent., dithranol 0.05-0.5 per cent., and local irradiation with ultra-violet light either alone or combined with crude coal tar.

Those of more doubtful value include salicylic acid 0.5-5 per cent., either alone or combined with other medicaments, ammoniated mercury ointment with and without solution of coal tar, and numerous others.

The combination of the vitamin A with triamcinolone in an oil-in-water emulsion has proved successful and further clinical trials are still in progress. The vitamin must be used in a water-solubilised form; the oil soluble preparations are of little or no value. This is an intriguing observation, since there is some basis for the belief that oil soluble substances are better able to penetrate the epidermis than those dissolved in water.

The only really effective means of control of lichenification are local corticosteroids, and either Grenz or X-irradiation. Other local treatments, including menthol, camphor, phenol and anaesthetic ointments, such as benzocaine or cocaine, are usually either useless or frankly dangerous, because they may produce a contact dermatitis.

Eczema is one of the commonest skin diseases, and one for which endless remedies have been suggested. It can usually be taken that the number of treatments recommended for any particular condition is in the inverse ratio to the value of any one of them: eczema has more treatments than any other skin disease. In the early stages of weeping eczema, soaks certainly make the patient more comfortable. Later in the dry scaly stage, zinc paste, zinc paste and ichthammol, tar ointments as for psoriasis, and, of course, the local corticosteroids can be employed.

Further experimental work is required to ascertain whether zinc can substitute for magnesium in the epidermis.

In the past pemphigus was a fatal skin disease. If the patient survived the first attack he usually succumbed to the second or the third. The advent of steroids has greatly changed this prognosis.

Dermatitis herpetiformis is an example of a disease the cause of which we do not know and one which we can control with therapeutic agents whose action we do not understand. This relatively rare disease is controlled with small doses of sulphapyridine (0.25-1.0 gm. daily) or by dapsone given in doses of 25 to 100 mgm. a day. The mode of action of these two drugs in this condition is entirely unknown.

With the advent of sulphonamides and antibiotics the control of pyococcal diseases has become greatly improved.

Modern therapy with griseofulvin provides a relatively safe method of oral treatment of fungus infections and requires only the simplest of local medication.

Dermal Disorders

Under this heading I am including a small group of unrelated disorders which have become amenable, at least to some extent, to modern treatment, whether or not the rational basis for their success is known.

We have reason to believe that the dermis exists in the living skin as a gel and not as a network of fibres and blood vessels surrounded by fluid.

Urticaria can be controlled empirically with antihistamine drugs.

No specific treatment for Lupus Erythematosus is available. Nevertheless certain of the modern anti-malarial drugs, such as mepacrine and chloroquin, are of great value, although their mode of action is unknown. In the disseminated form steroids are life saving.

There is no known specific remedy for scleroderma.

Oestrogens are of value in acne rosacea, but they are nothing like so effective as with acne vulgaris. (Department of Dermatology, University College Hospital Medical School.)

PHARMACEUTICAL FORMULATION IN SKIN MEDICATION

J. W. Hadgraft, F.P.S., F.R.I.C.

It is now possible to formulate a range of preparations from which the dermatologist can make a selection for the need he has in mind. The requirements are listed. In the acute inflammatory stages of disease, simple aqueous lotions may be used in the form of wet dressings. They have a cooling effect on the skin, do not impede drainage and are useful in the removal of crusts and debris. Lotions containing an insoluble solid, which may be of value in the treatment of subacute conditions, combine the cooling effects of an aqueous solution with the protective effects of a powder which remains on the skin surface. Ointments are useful for the application of insoluble and oil-soluble medicaments. They leave a greasy film on the skin, inhibiting the loss of moisture and encouraging hydration of the keratin layer. They may be of value for dry scaly lesions in which there is a need to improve the suppleness of the skin. Pastes contain a high proportion of powder dispersed in a fatty base. They combine the properties of powders, absorbing exudate, and ointments providing a greasy protective film on the skin. Creams combine the characteristics of the lotions and ointments.

The paper describes some of the materials used to formulate dermatological preparations and deals with some of the pharmaceutical problems encountered in their use. Aerosol formulations have advantages in enabling the preparation to be kept sterile and out of contact with air until the time of use. The medicament is applied direct to the skin surface by a no-touch technique and that may be of value in the treatment of conditions susceptible to secondary infection. The efficiency of distribution may also be important in covering a large area of the skin with the minimal amount of medicament in a finely divided form. The precise value of such formulations awaits further clinical assessment.

Conclusion

The general conclusion reached by the author is the preparations formulated for skin medication should be kept as simple as possible. Water-soluble medicaments are probably best applied to the skin in aqueous solution. Ease of application and localisation of effect may be achieved either by the addition of hydrophilic colloids, such as sodium carboxymethylcellulose or by emulsification with an oil to form an aqueous cream. The nature of the oil phase depends upon the condition under treatment, but the materials added to assist pharmaceutical formulation should be kept to a minimum to avoid adding materials likely to interfere with the activity of the medicament or to produce sensitivity reactions. There are now available anionic, cationic and non-ionic emulsifying agents which permit the formulation of creams suitable for all kinds of medicaments. Oil-soluble medicaments are best applied in oily creams, but there is at present no entirely satisfactory official preparation for the purpose. Water-soluble bases have only a limited use, since they do not appear to be free from irritant effects. The effects of pharmaceutical formulation on the activity of topically applied medicaments has not been fully assessed clinically. Probably the most that can be achieved is to present the medicament in a form which enables it to exert its maximal activity in a preparation which is cosmetically as acceptable as possible. Additional materials in use in the cosmetic industry are applicable to the formulation of dermatological preparations. (From the Pharmaceutical Department, Royal Free Hospital, London, W.C.1.)

PHASE SOLUBILITY ANALYSIS IN QUALITY CONTROL

By William T. Outch

(A paper presented to Section O, Pharmaceutical Science, A.N.Z.A.A.S., Brisbane Meeting)

- (1) SUMMARY.
- (2) INTRODUCTION
- (3) EXPERIMENTAL TECHNIQUE.
- (4) DISCUSSION
- (5) CONCLUSION
- (6) BIBLIOGRAPHY

1. Summary

Phase solubility analysis is a technique by which we can determine the purity of a substance. It has many advantages over the usual methods of purity determination and is particularly suitable for the precise estimation of the purity of compounds which may be contaminated with closely related compounds.

This technique may be divided into five distinct steps:

1. Mixing, in separate systems, increasing quantities of material with measured amounts of a solvent.
2. Establishment of equilibrium for each system at identical constant temperature and pressure.
3. Separation of the solid phase of the solutions.
4. Determination of the concentration of the material dissolved in the various solutions.
5. Plotting the concentration of the dissolved material per unit of solvent (Y axis or Dissolved Concentration) against the weight of material per unit of solvent (X axis or Total Concentration). The slope of this graph yields a measure of the purity of the material.

These steps will be outlined in detail and illustrated with a specific example.

The phase solubility technique is very useful in the Quality Control analysis of many chemicals used in the pharmaceutical industry.

2. Introduction

Phase solubility analysis is a very useful technique by which we can determine the purity of a substance. It is based upon the fundamental principles of heterogeneous equilibria and requires the precise measurement of solubility. The following discussion is restricted to systems containing two solids and one liquid, although the method is suitable for mixtures of more than two solids. The general experimental technique is not new and Gibbs' phase rule has been used to explain the theory. However, it is not necessary to apply the phase rule, or even understand it, to make considerable use of the phase solubility technique.

In Quality Control this technique is used for the purpose of deciding whether a preparation consists of one or more components and the simple concept that an equilibrium condition is independent of the quantities of any of the phases will cover most of such cases. It is the constancy of solubility in a range of system compositions that is the characteristic of a single component.

The following is a brief description of the phase rule theory upon which the technique is based.

Mader¹ has divided the technique into five distinct steps:

1. Mixing, in separate systems, increasing quantities of material with measured amounts of a solvent.
2. Establishment of equilibrium for each system at identical constant temperature and pressure.
3. Separation of the solid phase from the solutions.
4. Determination of the concentration of the material dissolved in the various solutions.

5. Plotting the concentration of the dissolved material per unit of solvent (Y axis or Dissolved Concentration) against the weight of material per unit of solvent (X axis or Total Concentration). The slope of this graph yields a measure of the purity of material.

The Gibbs' phase rule, which applies only to systems at equilibrium, states that the number of phases plus the number of degrees of freedom equals the number of components plus two. This may be represented as $P + F = C + 2$.

A phase (P) is defined as any homogeneous and physically distinct part of a system which is separated from other parts of the system by definite bounding surfaces.

The number of components (C) is the smallest number of independent chemical constituents by means of which the composition of every possible phase can be expressed.

The number of degrees of freedom (F) of a system is the number of variable factors, such as temperature, pressure and concentration, which need to be fixed in order that the condition of a system at equilibrium may be completely defined.

Since the temperature and pressure are held constant during the determination

$F_1 = F - 2$ where F_1 equals the remaining compositional degree of freedom and the equation then becomes $P + F_1 + 2 = C + 2$ or $P + F_1 = C$.

Fig. 1 shows the various types of curves possible when considering a system consisting of one or two solid phases and one liquid phase.

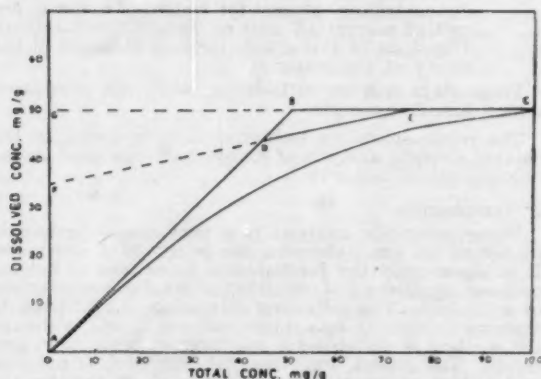


FIG. 1 TYPES OF SOLUBILITY CURVES

We will first consider the case where we have only two components, the pure substance and the solvent. This is represented in Fig. 1 by the graph ABC.

- (i) Section AB of the graph represents those aliquots obtained from systems which do not contain any solid phase. The dissolved concentration equals the total added and the point falls on a line which has a 45° slope when the scale units are equal.

In this case there are:

two components — the solvent and solute;
one phase — the liquid phase;
and one degree of freedom — the concentration.

- (ii) Section BC of the graph represents those aliquots obtained from systems in which the pure solid is in equilibrium with a saturated solution.

In this case there are:

two components — the solvent and solute;
two phases — the solid and liquid;
and no degrees of freedom, as there is no variation in concentration.

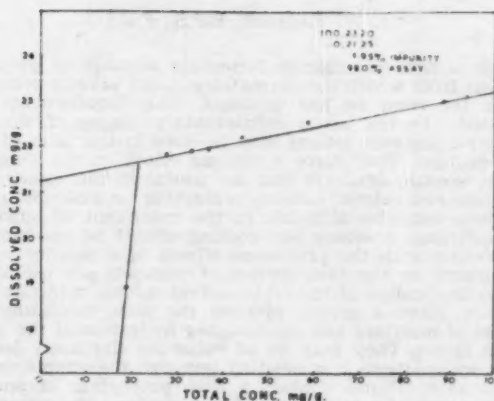


FIG. 2 MECAMYLAMINE HYDROCHLORIDE SOLUBILITY CURVE

Thus, if we carry out the phase solubility analysis of a substance and we obtain a graph of the general shape ABC, we know that the substance tested is a single component.

We will consider next the case where we have two solids and one liquid phases and the solution will first become saturated with one component. This is represented by the graph ADEC.

- (i) Section AD represents those aliquots obtained from systems which do not contain any solid phase.
- (ii) Section DE represents those aliquots obtained from systems which are saturated with one solid component.

In this case there are:

three components — one solvent and two solutes;

two phases — one solid and a liquid;

and one degree of freedom, revealed by the slope of line DE. This is the concentration of the solid which has not yet formed a saturated solution.

- (iii) Section EC of the graph represents those aliquots obtained from systems in which the solvent is saturated with both solid components.

In this case there are:

three components — one solvent and two solutes;

three phases — one liquid and two solid;
no degrees of freedom as there is no variation in concentration possible.

Thus if we carry out the phase solubility analysis of a substance and we obtain a graph of the general shape ADEC, we know that the substance

Northrup and Kunitz⁴ have shown that if the line DE is projected to the Y axis, the value of the intercept AF is the solubility of the pure component which first appears as a solid phase. The solubility of the component which forms the second solid is obtained by

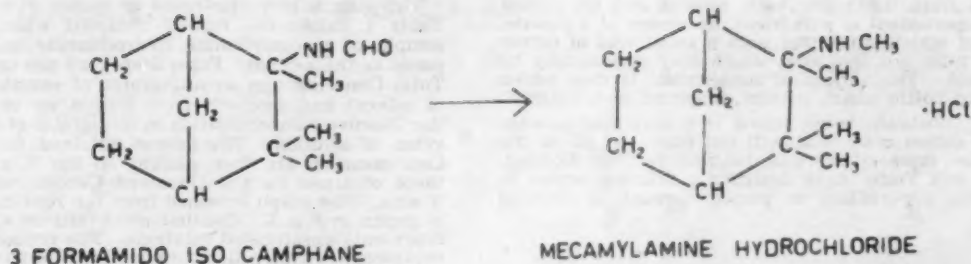


FIG. 3. MECAMYLAMINE HYDROCHLORIDE STRUCTURE.

difference, viz. the constant Dissolved Concentration, which is AG minus AF, i.e. FG.

- (iv) The final curve in Fig. 1 is AC. In this case the solubility varies continuously as the total concentration is increased, approaching asymptotically a constant value. Such a result is obtained with solid solutions and in such cases no quantitative predictions are possible.

3. Experimental Technique

As stated previously, the phase solubility technique may be divided into five steps and we will consider each of these steps in detail in examining the procedure to be followed.

Step 1: Mixing, in separate systems, increasing quantities of material with measured amounts of solvent.

This introduces the problem of selection of a suitable solvent which can be used. Trenner⁸ recommends the use of a solvent in which the sample is about 1% soluble. The solvent should be of known purity and should not react with the sample, and should be reasonably volatile so that it can be easily evaporated.

A tared 10 ml. ampoule is used to contain the system and into this is weighed the ground, dried, sample. The solvent is added by pipette and the ampoule sealed, retaining all the glass so that the weight of solvent added can be determined.

This procedure is carried out for six to eight ampoules each containing different weights of sample, but the same volume of solvent. The weights chosen depend upon the solubility of the sample, but the lowest weight should be less than is required to saturate the solution and the remainder should form a series ranging from weights just greater than that required for saturation to a weight which will give a solid phase of about 90% of the sample added.

Step 2: Establishment of equilibrium for each system at identical constant temperature and pressure.

This was previously achieved by rotating the ampoules, end over end, in a constant temperature water bath and usually required 2-14 days. This was a considerable limitation of the technique and is probably why it has not been used more extensively. However, it has now been found possible to shorten this time required for equilibration to 8-16 hours by the use of a vibratory mixer. This mixer can be used to vibrate the ampoules in a vertical plane at high speeds and varying amplitudes.

The ampoules are placed on a holder, which is fitted to the vibratory mixer, and immersed in a constant temperature water bath at $25.0 \pm 0.1^\circ\text{C}$. and shaken for 8-16 hours. (The temperature of 25.0°C . is chosen for convenience, but other temperatures could be used if they are controlled to $\pm 0.1^\circ\text{C}$.) After this time the vibratory mixer is turned off and the suspensions allowed to settle for several hours before removing the supernatant.

The equipment used in this step is shown in Fig. 5.

As the determination is dependent upon equilibrium being established at this stage it is very useful to be able to confirm whether the time for equilibration was sufficient. This may be done by warming one of the ampoules (care being taken to ensure that not all of the solid dissolves), in order to obtain a supersaturated solution before placing in the water bath. The values obtained from this ampoule should fall on the same line as those obtained from the ampoules in which equilibrium was approached from the unsaturated side.

Step 3: Separation of the supernatant from the solid phase.

When the suspensions have settled and the supernatant solutions are clear, the individual ampoules are

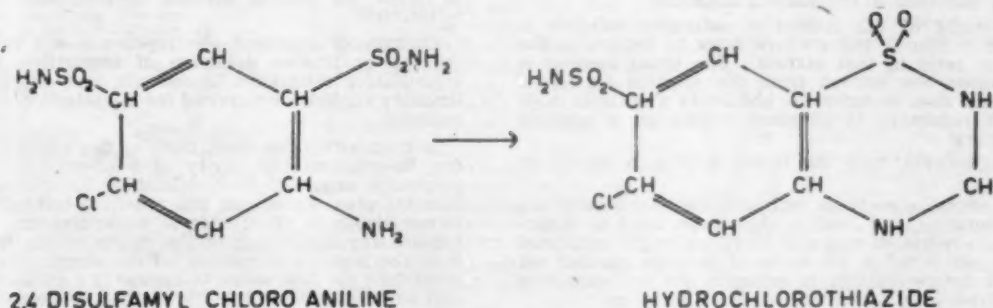


FIG. 4. HYDROCHLOROTHIAZIDE STRUCTURE.

removed from the water bath, opened and an aliquot of the supernatant is withdrawn by means of a pipette, the tip of which is covered with a small wad of cotton wool to filter out any solid which may accidentally be withdrawn. The aliquot of supernatant is then added to a tared bottle which is then stoppered, and weighed.

If the substance being tested is a very fine powder and the cotton wool wad will not filter out all of the solid, the supernatant will require further filtering. Tarpley and Yudis⁷ have designed a filtering device in which the supernatant is passed through a sintered

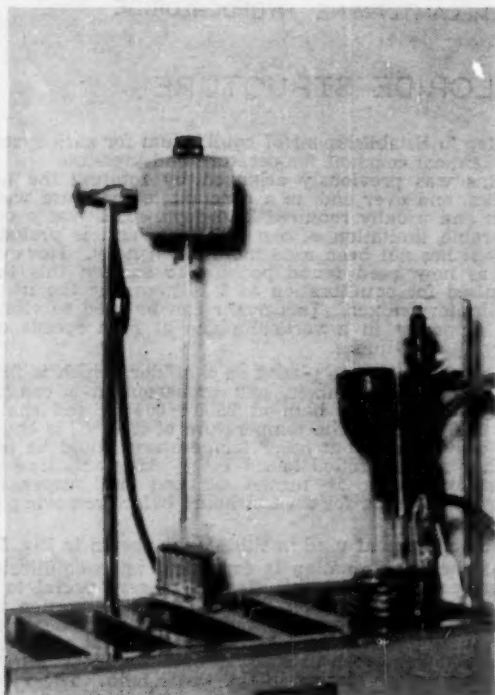


Fig. 5

glass disc under positive pressure with nitrogen bubbled through the same solvent that is used in the analysis.

Step 4: Determination of the concentration of the material dissolved in the various solutions.

The weight of the aliquot of saturated solution is obtained in Step 3 and we now have to determine the weight of solid in that aliquot. The usual method is to evaporate the solvent from the solution by freeze drying and then transfer the bottles to a vacuum oven for final reduction to constant weight at a suitable temperature.

The apparatus used for freeze drying is shown in Fig. 6.

Other chemical methods such as ultraviolet absorption, optical rotation and acidity have been used to determine the amount of material dissolved in the saturated solution. Herriot,⁸ in his study of proteins, carried out Kjeldahl determinations to estimate the concentration of dissolved material in the saturated solutions.

Step 5: Plotting the concentration of the dissolved material per unit of solvent (Y axis or Dissolved Concentration) against the weight of material per unit of solvent (X axis or Total Concentration).

This step is best illustrated by means of an example. Table 1 shows the results obtained when testing a sample of mecamlamine hydrochloride using isopropanol as the solvent. From Step 1 we can calculate the Total Concentration in milligrams of sample per gram of solvent and similarly from Step 4 we can calculate the Dissolved Concentration in milligrams of residue per gram of solution. The figures obtained for the Total Concentration are then plotted on the X axis against those obtained for the Dissolved Concentration on the Y axis. The graph obtained from the results in Table 1 is shown in Fig. 2. The first point falls on a line which represents unsaturated solutions. The remaining points represent systems which contained a solid phase. A line is then drawn through these remaining points and extrapolated to the Y axis and to a vertical line drawn through the point where the Total Concentration is 100 mg/g.

If there was no impurity present in the sample, the line plotted through the points obtained from the systems which contained a solid phase, would be parallel to the X axis and when extrapolated back to the Y axis would give the solubility of the example at the conditions of the test.

If, however, an impurity is present in the sample this line will not be parallel to the X axis and will continue to rise, and the slope of this line will be a measure of the amount of impurity present. We first examine the point where this line intersects the Y axis, which in this case gives the solubility of the major component of the sample. In our example, this point is given as 0, 21.25. We then examine the point where the line intersects a vertical line drawn through the point where the Total Concentration is 100 mg/g. In our example this point is given as 100, 23.20. The difference between these points on the Y axis, viz. 1.95 mg/g., gives the solubility of the minor component of the sample. In this example the concentration of impurity is 1.95 mg/g. in a total concentration of sample of 100 mg/g. That is to say, there is 1.95% impurity, or the sample is 98.0% pure.

Thus we have determined the purity of a sample using the phase solubility technique.

4. Discussion

There are many techniques available to the chemist by which he can determine the purity of a sample. Most chemical methods require the comparison of the sample with a pure reference standard.

Melting and freezing curves require the compounds to be completely stable under the conditions of test and are not suitable for substances which are heat labile.

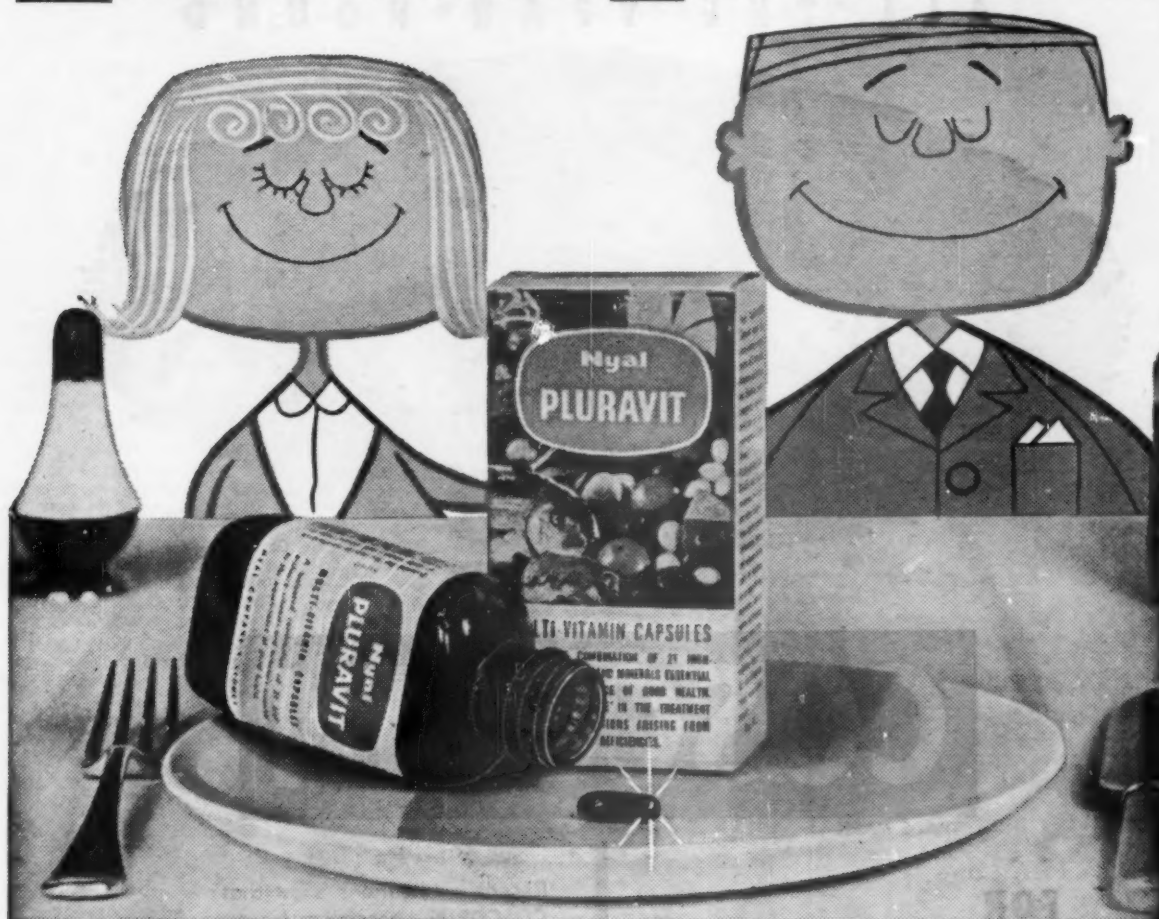
The counter current distribution method described by Craig⁹ has found considerable use in purity determination. However, it requires considerable experimentation in order to find a solvent system with sufficient selectivity.

Chromatography and electrophoresis are very useful for the qualitative detection of impurities, but their quantitative estimation is difficult, and extensive preliminary studies are required for the selection of suitable solvents.

In contrast to the limitations of the above technique for determining the purity of a substance the phase solubility analysis, first described by Northrup and Kunitz,⁶ proves a simple and sensitive technique which is applicable to all species of molecules and does not require any knowledge of the nature of the impurities. It is also possible to recover all the sample. During the procedure the first solute to appear is a pure component and so it is possible by this method to prepare a pure primary standard.

However, the phase solubility technique does have some limitations. Firstly, the purity of solid solutions cannot be determined by this method.

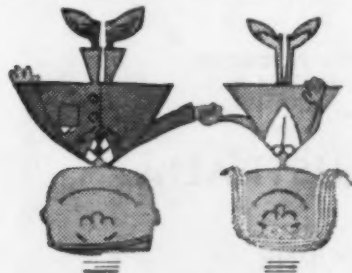
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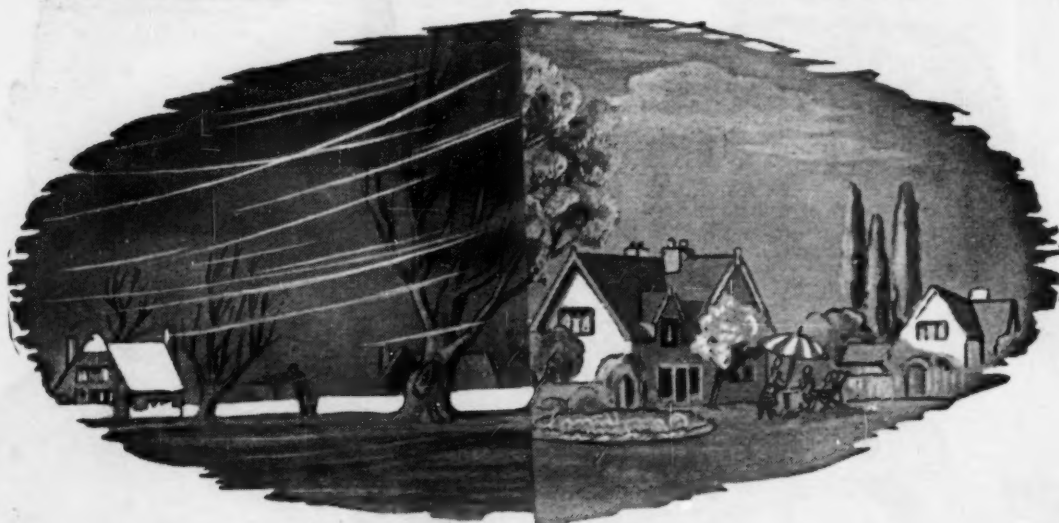
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Amer. J. med. Sci. (1957), 234, 191.
*Dis. Chest (1957), 32, 305.

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TABLE I
S 2997 Au Sp 1029 MECAMYLAMINE HYDROCHLORIDE Not Ster.

Ampoule No.	Wt. of Sample (mgs)	Wt. of iso-Prop. (g)	Concn. mg/g Solvent	Wt. of Soln (g)	Wt. of Residue (mg)	Concn. mg/g Solvent
1.	69.87	3.680	18.99	1.562	29.53	18.90
2.	109.03	3.898	27.97	1.573	34.21	21.75
3.	130.24	3.889	33.49	1.567	34.26	21.86
4.	144.28	3.886	37.13	1.564	34.30	21.93
5.	173.71	3.884	44.72	1.567	34.75	22.18
6.	229.78	3.886	59.13	1.565	35.26	22.53
7.	349.25	3.891	89.76	1.556	35.75	22.98
8.	366.12	3.881	94.34	1.568	36.23	23.11

Secondly, a racemic 1:1 mixture of d and l isomers would analyse as a single component. If this case is suspected, by adding either of the isomers to the mixture the substance can be resolved.

Thirdly, a compound which has more than one crystal form will usually convert to the more stable form if equilibrated over a very long period and this could be a possible source of error.

The fourth case in which the method would give erroneous results is when we are analysing a mixture of two or more substances which are present in the preparation in direct proportion to their solubilities. This case may be detected by performing the determination in solvents of a different nature or possibly by varying the temperature. In general, the ratio of the solubilities of substances varies with temperature and the nature of the solvent.

In Quality Control analysis an important problem is the determination of the purity of a compound synthesised from related intermediate compounds which

possess similar chemical groups. In such cases it is usually difficult to obtain a chemical determination which is sufficiently selective to distinguish between the product being tested, the intermediate and any compounds formed by side reactions. As phase solubility analysis does not rely on chemical specificity but merely on the physical property of solubility, it is very well suited for the determination of the purity of a compound which may be contaminated with closely related compounds. In our laboratory this method of analysis has been mainly applied to the determination of the purity of mecamlamine hydrochloride and hydrochlorothiazide.

The chemical structures of mecamlamine hydrochloride and the intermediate 3 formamido iso camphane, used in its synthesis are shown in Fig. 3. From these we can see how difficult it would be to determine the purity of the mecamlamine hydrochloride by the usual chemical assay procedures. Phase solubility analysis provides us with an estimate of purity which is precise to $\pm 0.5\%$.

Fig. 4 shows the chemical structures of hydrochlorothiazide and 2, 4 disulfamyl chloroaniline, the intermediate used in its synthesis. This impurity may be determined directly by a colorimetric diazotization-coupling method. However, this method would not detect the presence of any chlorothiazide, a very closely related compound which may also be present, and so we use the phase solubility technique to obtain a reliable estimate of purity.

The literature contains many reports of the phase solubility technique^{1,2,3,4,5,6,7,8,9,10,11,12} and its successful application to the determination of the purity of proteins¹ hormones² and steroids³ and the United States Pharmacopeia Volume XVI contains details of the method.

5. Conclusion

Phase solubility analysis is a very useful technique by which we can determine the purity of a substance. It is based upon the sound theoretical concepts of heterogeneous equilibria and requires the precise measurement of solubility. The technique is simple, and all the material used in the analysis may be recovered and in some of the systems used in the test a pure component is prepared. The technique is also sensitive and is applicable to all species of molecules and does not require any knowledge of the nature of the impurities. Finally the technique is excellent for the determination of the purity of a compound which may be contaminated with closely related compounds and so should find considerable application in the field of Quality Control Analysis.

Acknowledgment

I would like to thank the Directors of Merck Sharp & Dohme (Australia) Pty. Ltd. for their kind permission to publish this paper.

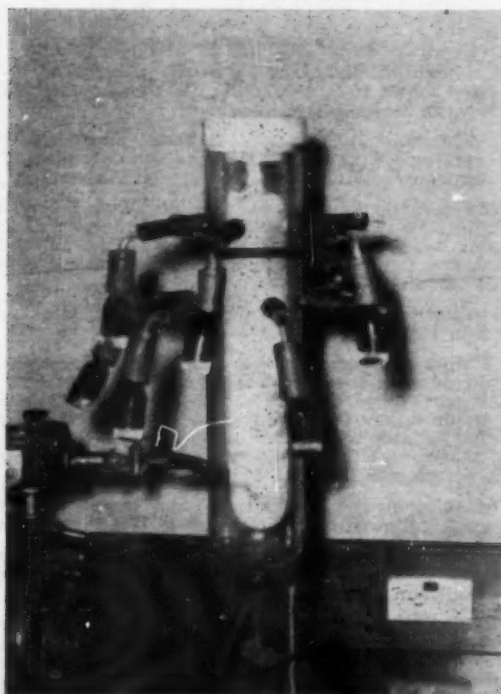


Fig. 6

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PHARMACEUTICAL CONTROL IN BRITAIN

The Chairman of the British Pharmaceutical Conference, Portsmouth Meeting, September, 1961, was Dr. D. C. Garratt, an authority on analytical chemistry engaged in pharmaceutical industry. His address was, "A More Rational Approach to Pharmaceutical Control" (see this Journal, September, 1961, p. 916).

Nature, October 14, 1961, gave this review of the address: "Dr. D. C. Garratt states a case for a more effective control of the quality of medicinal substances. Drugs not governed by official standards should not become available to the public except under a notification scheme, similar to that already in force for pesticides, so that their clinical characters and standards of purity, with appropriate methods of analysis, would have prior approval. Standards for all medicines should be enforced by testing in regional laboratories specialised for the purpose and maintained by the Ministry of Health. For reputable approved firms the contractor's own inspection organisation could be given the initial responsibility for compliance of goods with specification. The pharmaceutical analysis involved should be admitted as a distinct discipline, by the institution of special training courses and recognised qualifications.

"At present, control analysis is too often rendered pointless by insufficient attention to the precision of the methods involved; and for a full realisation of the potentialities of such techniques as, for example, ultra-violet spectrophotometry, a national collection of standard specimens of authentic materials of known impurity content is essential. Authority for the enforcement of those standards should be incorporated in an Act of Parliament.

"It should be every analyst's concern to consider what can be done to reduce costs of examinations, for example, by using equally effective, but cheaper, solvents, by applying rapid instrumental techniques or, where possible, by replacing costly bio-assay investigations by simpler paper chromatographic techniques.

"Dr. Garratt suggests that the public would receive better protection if the control of drugs were divorced from the present Food and Drugs Act and incorporated in a new Medical Substances and Preparations Act built around Sections 11, 12 and 13 of the Pharmacy and Medicines Act. Imported drugs should be subject to stringent examination by analysts of acceptable status. Such status might be conditional on the possession of a special diploma incorporated as a requirement of competence in the proposed Medical Substances and Preparations Act. Examinations for such diploma qualifications would be conducted by those chemical or pharmaceutical institutions approved by the Ministry of Health."

CHLORHEXIDINE OPHTHALMIC VEHICLE

J. A. Mitchell, R. M. Keane and N. G. Scotis,
Victorian College of Pharmacy

In the preparation of ophthalmic solutions the responsibility of the pharmacist is to dispense a product which is free from vegetative organisms and which will maintain this condition during use.

Whilst it is possible to dispense a sterile preparation, the inherent difficulty lies in maintaining bacteriostasis during use, especially as the concentration of bacteriostat that may be added often provides little margin for safety.

Various bacteriostats have been suggested. Frith¹ recommended Cetrime 1 in 20,000 as a preservative for ophthalmic solutions, this concentration being rapidly fatal to common pathogenic organisms.

In 1959 Jeffs² advocated the use of chlorhexidine diacetate 1 in 20,000 as an efficient bacteriostat and demonstrated its bacteriostatic properties at this concentration against *Ps. pyocyanea* and *Staph. aureus*.

In a trial arranged overseas³ aqueous solutions of chlorhexidine 1 in 2000 have been used extensively for irrigation of infected eyes, and also as drops prophylactically for the eyes of new born babies.

Humberstone⁴ recently suggested that soluble chlorhexidine salts, even in concentrations as low as 1 in 20,000, should not be dispensed in association with sulphate ions.

The aim of this work was to determine the compatibility of chlorhexidine digluconate 1 in 20,000 against a representative selection of medicaments commonly employed in ophthalmology and to compare these results against those obtained using a 1 in 2,000 dilution.

Experimental

Chlorhexidine digluconate was the salt chosen as it has been shown to be less irritant to tissues when compared with the diacetate.

Chlorhexidine digluconate solution 1 in 20,000 was prepared by dilution of "Hibitane" digluconate 20% w/v aqueous solution with freshly distilled water.

Each formula under test was prepared using the chlorhexidine digluconate 1 in 20,000 as the vehicle, the solution was filtered into a 1 fl. oz. clear eye-drop bottle, sealed, and the container immersed in water and boiled for 30 minutes.

All solutions, dilutions and final products were prepared in triplicate.

As other workers have employed the diacetate of chlorhexidine, a solution of chlorhexidine diacetate 1 in 20,000 was prepared and used to duplicate selected representatives of the formulae under investigation. An asterisk denotes where both chlorhexidine digluconate 1 in 20,000 and chlorhexidine diacetate 1 in 20,000 have been investigated against a particular drug.

The solutions were stored at room temperature for one week, followed by refrigeration at 1°C. for 24 hours.

pH values of all solutions have been determined, but have not been quoted as they do not appear to affect the results or conclusions. Refer Table One.

Chlorhexidine digluconate solution 1 in 2,000 (two thousand) was prepared by dilution of the "Hibitane" digluconate 20% w/v solution and used to prepare solutions of the substances undergoing investigation. These solutions were immersed in water and boiled for 30 minutes, and then stored at room temperature. (Refer Table Two.)

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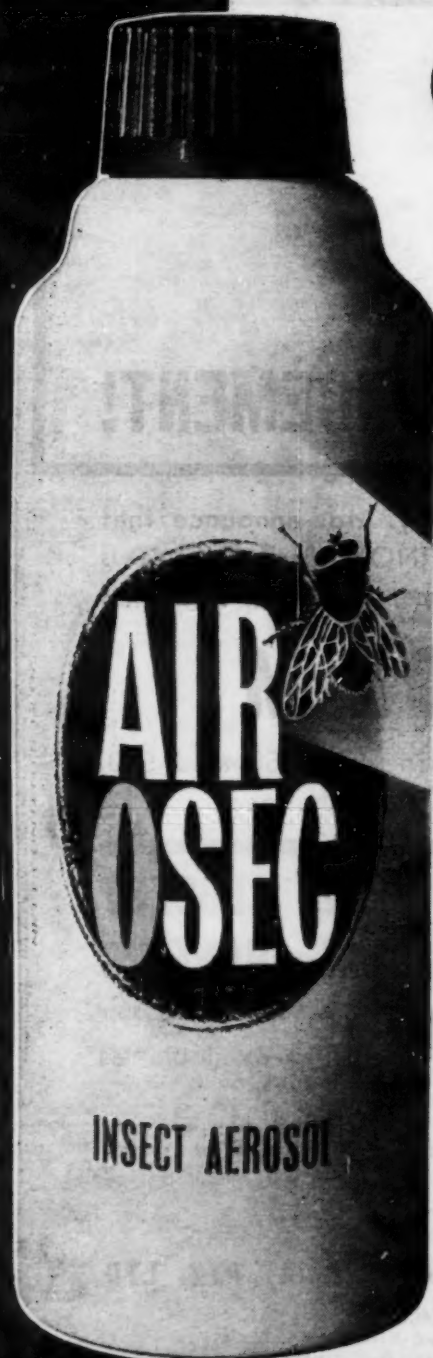
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Results
TABLE ONE
Precipitation in Ophthalmic Solutions Prepared in
Chlorhexidine Digluconate 1 in 20,000

Substance Tested	Formula	Precipitation
BICARBONATE		
*Sodium Bicarbonate	Alkaline Eye Lotion A.P.F.	—
BORATES		
*Borax-Boric Acid Buffer	Borate Buffer A.P.F. pH 7.29 pH 7.80 pH 9.01	— — —
BROMIDES		
*Homatropine Hydrobromide	Eye Drops of Homatropine A.P.F.	—
Hyoscine Hydrobromide	Eye Drops of Hyoscine A.P.F.	—
CHLORIDES		
Amethocaine Hydrochloride	Eye Drops of Amethocaine A.P.F. Eye Drops of Amethocaine less Sodium Chloride	— —
Aminacrine Hydrochloride	Eye Drops of Aminacrine A.P.F.	—
*Cocaine Hydrochloride	Eye Drops of Cocaine & Adrenaline A.P.F. Eye Drops of Cocaine, Adrenaline & Zinc A.P.F. (B.C.A.Z.)	— —
Phenylephrine Hydrochloride	Eye Drops of Phenylephrine A.P.F.	—
*Sodium Chloride	Normal Saline A.P.F.	—
CELLULOSE		
Methylcellulose	Eye Drops of Methylcellulose A.P.F.	—
NITRATES		
*Pilocarpine Nitrate	Eye Drops of Pilocarpine A.P.F.	—
Atropine Methonitrate	Eye Drops of Atropine Methonitrate A.P.F.	—
PHOSPHATES		
*Sodium Phosphate Sodium Acid Phosphate	Ophthalmic Phosphate Buffer A.P.F. pH 6.85	—
SALICYLATE		
Physostigmine Salicylate	Eye Drops of Physostigmine A.P.F.	—
SULPHATES		
*Atropine Sulphate	Eye Drops of Atropine Sulphate A.P.F. Atropine Sulphate 1%	— —
Butacaine Sulphate	Eye Drops of Butacaine Sulphate A.P.F.	—
*Zinc Sulphate	Eye Drops of Zinc Sulphate A.P.F. Eye Drops of Cocaine, Adrenaline & Zinc A.P.F. (B.C.A.Z.)	— —
SOLUBLE SULPHONAMIDES		
*Sulphacetamide Sodium	Weak Sulphacetamide Eye Drops A.P.F.	—

* Results verified against chlorhexidine diacetate 1 in 20,000.
+ Indicates precipitation.
— Indicates no precipitation.

TABLE TWO
Precipitation in Chlorhexidine Digluconate 1 in 2,000

Substances Tested	Strength	Precipitation
Amethocaine Hydrochloride	0.5%	—
Atropine Sulphate	1.0%	+
Borate Buffer A.P.F.	pH 7.62 pH 7.93 pH 9.01	++ ++ +
Cocaine Hydrochloride	1.0%	—
Homatropine Hydrobromide	1.0%	—
Methylcellulose	1.0%	+
Phosphate Buffer A.P.F.	pH 6.85	+
Pilocarpine Nitrate	1.0%	—
Sodium Bicarbonate	1.5%	+
Sodium Chloride	0.9%	—
Sulphacetamide Sodium	10.0%	+
Zinc Sulphate	0.25%	+

+ Indicates precipitation.
— Indicates no precipitation.

Discussion

In each case where a concentration of chlorhexidine digluconate 1 in 20,000 or diacetate 1 in 20,000 was employed, the solution was free from opaqueness or any visible precipitate.

Where chlorhexidine digluconate 1 in 2,000 was tested, the precipitates which resulted were in all probability salts of chlorhexidine having a lower solubility than the digluconate. This has been demonstrated to be the case with the precipitate from chlorhexidine-atropine sulphate solution⁴.

Using methylcellulose, a flocculent precipitate occurred on heating, as expected, which almost completely redissolved on cooling, leaving visible a fine precipitate.

Sulphacetamide Sodium. Though an ionic incompatibility might be expected with the salts of chlorhexidine, using a 1 in 20,000 dilution, no precipitate was evident. This solution was intended as a comparison only and is not intended as a precedent for the dispensing together of chlorhexidine salts and soluble sulphonamides.

Conclusion

The results of this investigation indicate that salts of chlorhexidine in dilution 1 in 20,000 do not precipitate with drugs commonly used in ophthalmology and the findings are in complete agreement with Jeffs².

In view of other published work we advocate the inclusion in ophthalmic solutions of chlorhexidine digluconate 1 in 20,000 in association with cationic and non-ionic drugs.

We further suggest that solutions of chlorhexidine 1 in 2,000 should not be prepared in association with bicarbonate, borate, phosphate or sulphate ions.

NOTE: We have been advised that a "Hibitane" aqueous concentrate 1 in 2,000 for the preparation of ophthalmic solutions will be marketed soon.

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RADIATION STERILISATION IN BRITAIN

It is reported in *Manufacturing Chemist*, September, 1961, that: The first British company—indeed the first non-American company—to take the plunge into radiation sterilisation is Smith and Nephew. They have ordered from the U.S. a £100,000 Van de Graff electron accelerator for research into radiation sterilisation of surgical materials and for pilot plant production. At the symposium on sterilisation organised by Smith and Nephew last April at the School of Pharmacy, London, it emerged that radiation sterilisation was particularly suitable for a company handling large quantities of materials such as bandages, plasters and medical dressings. There are two systems: the employment of a radio-active source such as is used at the Wantage Irradiation Plant, and the electron accelerator. Smith and Nephew say they chose the accelerator only after very careful consideration. While this must be a disappointment to the advocates of the cobalt-60 radiation source, it does not rule out this system when the company come to decide on production sterilisation plants.

Smith and Nephew will use the accelerator to devise optimum conditions of sterilisation of the group's products. This research could ultimately lead to the provision of a very much wider range of pre-sterilised products, thus assisting in the fight against cross-infection in hospitals.

One of the chief advantages of radiation sterilisation over other methods is the possibility of operating the process on a continuous basis and at the same time achieving more effective sterilisation. Radiation methods make possible the sterilisation of articles even after they have been enclosed in hermetically sealed packages such as cachets and plastic film envelopes. The older methods of dry heat or gas sterilisation often cannot be used with modern packaging materials.

The Van de Graaff machine will produce electrons with energies up to 4 million electron volts at a power output of 4 kilowatts. The machine consists of a large evacuated acceleration tube, carrying at one end a cathode for the production of electrons. These electrons are accelerated down the tube under the influence of a potential of 4 million volts and emerge at the other end of the tube through a window, as a beam of electrons. A special feature of the accelerator is the method of producing the accelerating potential: a charge is deposited on to a moving belt and carried on that belt until it is removed by a collector. The "cleaned" belt then returns for deposition of a further charge. This process is carried out continuously and in this way a potential of 4 million volts is accumulated on the collector terminal to be used for accelerating the electrons in the tube.

In order to avoid the possible risk of danger to those employed in operating the machine, it is placed inside a shield of concrete and the articles to be sterilised are passed into the shield by means of a conveyor. The products which are sterilised are not radio-active and there is no risk of any danger to anyone handling them after they have been sterilised. The machine can sterilise up to 600 lb. of material per hour. It is hoped to have it working within a year or less.

EXPANSION OF CHEMICAL INDUSTRY IN ISRAEL

The Israeli chemical industry is embarking on an extensive expansion programme. At Sdom at the south end of the Sea, the Dead Sea Works Ltd. will increase its present annual production of 150,000 tons of potash to nearly 600,000 tons and means will be provided to

increase the output to 900,000 tons if required. When the expansion programme is completed in 1965, the company's exports of potash and other chemicals will rank next to the citrus industry as Israel's most important source of foreign exchange earnings.

The Dead Sea Works Ltd. (Mifalei Yam Hamelah B.M.) was formed in 1952 by the Government of Israel, taking over the assets in Israel of the Palestine Potash Company Ltd.

The Dead Sea, which is about 345 square miles in area, contains great quantities of mineral salts, including an estimated 2,000 m. tons of potash. Extraction of potash and other chemicals begins with the concentration of brine by solar evaporation in large shallow ponds, or pans, in which carnalite is precipitated. All the shore area available for these pans in the vicinity of the Dead Sea Works refinery at Sdom is now being used; to expand capacity the company must extend the evaporation area into the Dead Sea itself. It will do so by building 29 miles of dikes to enclose a sea area of 38 square miles for use as concentrating pans. A new refinery will be built to process the carnalite dredged from the new pans while the existing refinery will continue to process material from the old pans.

Although potash will be the principal product, the programme also includes expansion of existing facilities and the construction of plants for the manufacture of other products. For example, a plant operated by a Dead Sea Works subsidiary will be expanded to produce 10,000 tons of bromine annually. A large part of this will be converted into ethylene dibromide, used mainly as a petrol additive and fumigant. A new plant, to be owned and operated by a subsidiary recently formed with United States and British companies, will be built to produce various bromine derivatives. Another subsidiary, formed with the collaboration of two U.S.A. companies, will operate a new plant which will produce 75,000 tons a year of magnesite, a refractory material. The Dead Sea Works is also installing facilities to produce 20,000 tons of table salt a year.—"Industrial Chemist," October, 1961.

CHEMISTRY IN THE SERVICE OF MEDICINE

The second British Congress on the History of Medicine and Pharmacy was held in London, September 27 to 29.

Its theme was "Chemistry in the Service of Medicine." The congress was organised by the Faculty of the History of Medicine and Pharmacy of the Society of Apothecaries with the co-operation of the Chemical Society. *The Pharmaceutical Journal*, October 21, 1961, reported it as follows:—

"The proceedings were opened by Dr. Allen G. Debus (Harvard and Chicago University), who gave an account of Paracelsian doctrine in English medicine up to 1660.

Dr. F. W. Gibbs outlined Hermann Boerhaave's career as Professor of Medicine at Leyden in the early 18th century. Dr. Gibbs said that Boerhaave had taught that medical problems should be approached in a critical, scientific manner. The emphasis in his teaching had been on experimental methods; the uniqueness of his teaching lay in the fact that while he insisted upon a proper knowledge of the sciences, including chemistry, he allowed no subject to predominate.

The President of the Congress, Professor Douglas McKie, reviewing "Chemistry in the Service of Medi-



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cine from 1660 to 1800," described the period as a very active one, beginning with Boyle's experiments in respiration and combustion and ending with Lavoisier's experiments on heat changes in the process of respiration. For the first 100 years or so of this period chemistry remained under the influence of the alchemists and Paracelsians, this phase of iatro-chemistry continuing until the middle of the 18th century. In spite of the advances made by Boyle in the investigations of combustion and respiration, and the remarkable theories of Hooke and Mayow, little progress was made till the discovery of "fixed air" by Joseph Black, himself a physician. The studies of Cavendish, Priestley and Scheele led up to the solution of that problem, and to the overthrow of the phlogiston theory by Lavoisier's discoveries of the compositions of air and water. His calorimetric studies on respiration, which were so advanced for his time, and their impact on physiological thought, brought chemistry once more into the service of medicine.

Professor W. D. M. Paton (Oxford), describing the early history of pharmacology, defined the subject as a study of the response of living tissues to chemical substances. Therapeutics was the art of using particular remedies for particular diseases, while *materia medica* was concerned with the description of materials used in medicine. Pharmacology was an experimental science and a more recent development than either therapeutics or *materia medica*. The lecturer suggested that the more rapid development of pharmacology in the 19th century had not been paralleled in therapeutics because chemistry was insufficiently advanced, but there was a hint of something more than an insufficiently developed scientific background. "Therapeutic nihilism", or the belief that what was done to a patient mattered little, was prevalent. However, by 1919 the negative phase was ending, and between 1930 and 1940 the Pharmacopoeia began to change rapidly with the advent of synthetic substances. Until chemistry had reached a certain standard pharmacology could not advance and again if pharmacology did not advance chemistry was deprived of the stimulus for its contribution to medicine.

Speaking on "Chemistry and Endocrinology," Sir Charles Dodds said that there were indications that endocrinology had been understood by the ancients and in the Middle Ages. He referred to the science of opotherapy: the treatment of disease by administration of an extract from animals' organs, for example, liver extract for disease of the liver. The only instance which survived to modern times was the use of thyroid gland in the treatment of thyroid deficiency. He referred to the work of Addison and to the isolation of adrenaline, which was synthesised after its chemical structure was ascertained. The discovery of adrenaline, he said, was the first milestone in the long and successful partnership between chemistry and medicine. He referred to the research work which led to the use of cortisone and allied products in the treatment of adrenal insufficiency and, later, in rheumatoid arthritis and collagen diseases. Clinical results had produced a world-wide demand for cortisone; production from natural sources was out of the question and the problem had been solved by the pharmaceutical houses so that soon cortisone production could be undertaken on a tonnage basis. Concluding, Sir Charles spoke about the interdependence of chemistry, medicine and endocrinology, and of the great debt which chemistry owed to medicine and biology and particularly to endocrinology because, he said, the most fertile imagination could not have thought up the chemical substances produced by endocrinology.

GENERAL MEDICAL COUNCIL

Approved Names

Approved Names are devised or selected by the British Pharmacopoeia Commission, and the intention is that if any of the drugs to which these Approved Names are applied should eventually be described in the British Pharmacopoeia the Approved Name should be its official title.

The issue of an Approved Name does not imply that the substance will necessarily be included in the British Pharmacopoeia or that the Commission is prepared to recommend the use of the substance in medicine.

Approved Names are adopted on the advice that they are free from conflict with trade marks registered in Great Britain and Northern Ireland. In some instances the names, other than the chemical names, appearing in the second column are applied to preparations of the substance; they also include some registered trade marks.

Supplementary List, December, 1961

Approved Name	Other Names
Aloxiprin	Polymeric condensation product of aluminium oxide and <i>O</i> -acetylsalicylic acid
Carbinoxamine	Palaprin p -Chloro- α -2-pyridylbenzyl 2-dimethylaminoethyl ether Clistin is the maleate
Dichloralphenazone	A complex of chloral hydrate and phenazone.
Dydrogesterone	Welldorm 9 β :10 α -Pregna-4:6-diene-3:20-dione 6-Dehydro-9 β :10 α -progesterone
Etryptamine	Duphaston 3-2-Aminobutylindole. α -Ethyltryptamine Monase is the acetate
Fluocinolone	6 α :9 α -Difluoro-11 β :16 α :17 α :21-tetrahydroxypregna-1:4-diene-3:20-dione 6 α :9 α -Difluoro-16 α -hydroxyprednisolone Synalar is the acetate
Methyl Cysteine	Methyl α -amino- β -mercapto-propionate Acdrile is the hydrochloride
Pentalamide	<i>o</i> -Pentyloxybenzamide <i>O</i> -Pentylsalicylamide
Phenaglycodol	2- p -Chlorophenyl-3-methylbutane-2:3-diol Ultran
Phenbenicillin	α -Phenoxybenzylpenicillin Penspek is the potassium salt
Sodium Metrizoate	3-Acetamido-2:4:6-tri-iodo-5- <i>N</i> -methylacetamidobenzoate
Thiethylperazine	2-Ethylthio-10-[3-(4-piperazin-1-yl)-propyl]-phenothiazine The name Torecan is applied to the base and its salts

Index to the Supplementary List

Proprietary Name	Approved Name
Acdrile	Methyl Cysteine
Clistin	Carbinoxamine
Duphaston	Dydrogesterone
Monase	Etryptamine
Palaprin	Aloxiprin
Penspek	Phenbenicillin
Synalar	Fluocinolone
Torecan	Thiethylperazine
Ultran	Phenaglycodol
Welldorm	Dichloralphenazone

Communications relating to Approved Names should be addressed to the Secretary, British Pharmaceutical Commission, General Medical Council Office, 44 Hallam Street, London, W.1.

MEDICAL SECTION

The Journal has pleasure in continuing a new feature this month. These medical notes are contributed by Dr. J. E. Aldred, who is a graduate in medicine and pharmacy.

By training and experience the pharmaceutical chemist is aware of the limitations imposed legally and ethically in relation to prescribing and treatment.

Authoritative knowledge of symptoms and treatment of common ailments however can be of very great value to chemist and customer alike, and can often aid him in reaching a decision as to whether a person should be directed to seek urgent medical advice.

The series will include articles on:

1. Common Diseases and Their Symptoms.
2. Current Trends in Treatment.
3. Therapeutic Notes.
4. Extracts from Medical History.
5. Topical Notes.

COMMON DISEASES AND EVALUATION OF SYMPTOMATOLOGY

ARTICLE No. 8 — PRESENT SERIES

DISEASES OF THE STOMACH AND RELATED ORGANS

Part C: Peptic Ulcer

By Dr. J. E. ALDRED

Peptic Ulceration

Peptic ulcers may develop in any portion of the alimentary tract exposed to the action of the gastric juice. The great majority occur in the stomach and duodenum, but peptic ulcers of similar type occur also in the distal portion of the oesophagus, in the jejunum, after certain operations in that area, and rarely in other parts of the small intestine.

The Acute Ulcer

These may be single or multiple, but often the latter, and occur in any part of the stomach or duodenum. Their aetiology varies widely, and they are common in the later phases of many acute infective and toxic conditions. The duodenal ulceration which occurs as a sequel to extensive burns belongs to this group. Acute ulcers are round or oval, and at first consist merely of erosion of the mucous membrane, but may extend to penetrate the deeper coats of the gut wall by progressive sloughing, which lessens in extent as the ulcer deepens to give it a characteristic terraced appearance. Acute ulcers are apt to erode arterioles and cause haemorrhage. Less commonly they penetrate all coats of the gut wall and perforate suddenly into the general peritoneal cavity. Most acute ulcers heal rapidly within a few weeks of onset and do not recur. Only relatively few persist, but this small proportion become the chronic ulcers most commonly seen by the surgeon.

The Chronic Ulcer

Chronic ulcers show a remarkable tendency to be restricted to certain very limited regions in the stomach and duodenum. In the stomach, the "ulcer area" includes the smaller curvature and the adjacent anterior and posterior surfaces from the oesophageal orifice to about 1½ inches from the pylorus; in the duodenum the area affected is ½ to 1 inch from the pylorus. The greater curvature and fundus are very rarely affected, and the discovery of an ulcer at such a site immediately arouses suspicion that such is in fact a neoplasm.

Chronic ulcers occur more commonly in the duodenum

than the stomach. Gastric ulcer occurs almost equally in women and men, whilst the duodenal ulcer occurs much more frequently in the male. Ulcers are very rare in childhood and adolescence, the majority occurring in adult life.

The Aetiology of Peptic Ulcer

Whilst much is known about many factors concerned in the formation of the peptic ulcer, there is yet controversy about mechanisms and the relative importance of these factors in the aetiological sequence. The literature on the subject is very extensive, varied, often confusing and yet always intriguing. There is no simple ABC of the matter.

Since peptic ulcer occurs only in those parts of the alimentary tract to which the gastric juice has access, it is clear that the immediate cause of the ulcer is erosion which is related to the process of peptic digestion. The normal mucous membrane resists such digestion; it can then be argued therefore that the formation of an ulcer may result either from loss of this protective quality or from alteration in the structure and activity of the gastric juice. To peruse some of the suggestions offered—Verchow suggests that the mucous membrane is devitalised as a result of thrombosis in one of the end arteries of the stomach wall. Rosenow suggests a similar process, but cites infection as a possible cause. There is little evidence to substantiate these theories. However, there is support for the view that increase in the activity of the digestive juice is at least one of the factors involved. Recent observations emphasise the importance of a constitutional predisposition to ulcer, and a familial tendency which is evident in over 10% of cases is noteworthy. Many ulcer patients fall into a type usually of "nervous" temperament; lean, energetic, restless and over-conscientious. This tendency is most marked in duodenal ulcer.

There is much evidence to support the relation of peptic ulcer to nervous or emotional tension. Such observation suggests relation to disturbed or altered innervation of the gut. The stomach is supplied by

both vagus and sympathetic fibres, and while their effects are by no means clear or distinct, it may be said in general terms that the action of the vagus is both motor and secretory, while that of the sympathetic is to antagonise these actions. Thus a preponderance of vagal stimulation leads to increased motility with spasm and to increased secretion with hyperchlorhydria. It is known too that the vagus centre in the hypothalamus is affected markedly by stimulation from the higher centres. In consequence the stomach is very sensitive to psychic and emotional influences. Pavlov's experiments on dogs submitted to sham feeding showed how the mere sight of food stimulated the secretion of gastric juice; while recently Wolff and Wolff by observations on a man with a gastric fistula have shown that not only the secretion but also the motility and vascularity of the stomach are influenced by nervous stress.

Clinical Features

Remember that peptic ulcer is the broad term, and that duodenal ulcer and gastric ulcer refer to a peptic ulcer at a specific site. Of these ulcer types some features are common to both, and some features characteristic of one type.

Peptic ulcer may manifest itself in a variety of ways. Commonly the onset is insidious, and consists of mild and intermittent dyspepsia or feelings of gastric discomfort extending over months or years, and noticed mostly after big, indigestible or hurried meals. The presentation, however, may be as an acute episode, with bleeding or perforation as the herald, with little or no previous indication in the history.

Dyspepsia.—The dyspepsia can usually be traced back over a long period. In the early stages it is typically intermittent with intervals of relief in which the patient can do and eat anything; but with progress of time these intervals lessen and the discomfort becomes persistent.

Pain.—This symptom is a more definite pointer to trouble, and can often be critically assessed. It is felt in the epigastrium or lower chest retrosternally or to the right of the epigastrium anteriorly, and can be at times felt through to the back, these areas bearing relationship to the somatic segments supplied by Th 5-8. The severity of the pain will vary. Nausea may occur, and with increasing pain, vomiting may appear.

With gastric ulcer the pain usually follows the act of eating. With duodenal ulcer the pain usually occurs 1½ to 2 hours after having partaken of food. Nocturnal pain is frequent with duodenal ulcer; often the patient wakes in the early hours and feels the need of food or some remedy to ease his pain. This quality to the pain is almost pathognomonic. While pain or discomfort is the most prominent symptom, the dyspepsia may also be accompanied by heartburn and followed by regurgitation of stomach contents. Relief of pain is experienced under three conditions: after antacids or milk, after vomiting, and with duodenal ulcer, after food.

The accurate localisation of pain from the history, localised tenderness and rigidity over one rectus muscle when present together are practically diagnostic of ulcer.

The Diagnosis of Peptic Ulcer

The clinical features as ascertained by history and examination form only a small facet of the knowledge we must have to accurately assess symptoms related to the alimentary tract. Special investigations are almost always undertaken. These investigations are by radiology, gastroscopy and biochemical means.

Radiology.—For any complete study of the stomach and duodenum a barium meal is required. A small amount of radio-opaque barium sulphate in suspension is swallowed. The effect is to outline graphically the

contour, folds and defects of the inner aspect of the stomach and duodenum. By such means ulcers and related conditions may be visualised. It is important to learn that whilst ulcers have well-known radiological characteristics we must remember that we are in fact looking at a shadow outline of something and not at the actual lesion. In many instances both clinician and radiologist feel that further supplementary evidence is required, and to this end gastroscopy is undertaken.

Gastroscopy.—In principle this amounts to passing what is in effect a periscope through the mouth, down the oesophagus to the stomach in order that the interior of the stomach may be visualised. The instrument is of course provided with its own light source. Although such an obvious procedure and of such simple concept, both the use of the gastroscope, which because of its refinements becomes somewhat complex, and the interpretation of what is seen require considerable experience and skill. The procedure is done with the patient conscious after suitably anaesthetising the throat and pharynx. It is possible by a special technique to remove small fragments of gastric mucosa at gastroscopy for biopsy.

It must be stressed that the full complement of investigation is not required in all cases. How much investigation is needed is dictated by the clinical acumen of the physician concerned and his feeling for the need of further elucidation of the problem. As in all medicine, some cases declare quickly and easily, whilst others require long and painstaking unravelling.

The Treatment of Peptic Ulcer

In broad principle the aims of any regime must be—

1. To relieve the patient.
2. To heal the ulcer.
3. To prevent a recurrence.

The end result of therapeutic measures in ulcer therapy is to afford some means of control of gastric secretion and acidity, whether this be by special diets, antacids, anti-parasympathomimetics and vagal paralytics and even the ultimate surgery which is so often designed to remove the ulcer-bearing area of the stomach and the total secreting surface. If you critically evaluate the many forms of ulcer regime and the multitude of remedies which abound on our shelves, you will see that by whichever means it is achieved the aim is to lower gastric acidity. The effect of antacids is obviously to neutralise acid on the spot. Development in the antacid field is to give more and more control of the acid level, but the principle of "on the spot" neutralisation remains.

In this class of substance at times we witness the added effect of adsorption. Reflect that the correct food will adsorb and neutralise much gastric acid. Consider the effect of protein on acid, and you have basis for belief that milk is quite an efficacious antacid.

Many ulcer types, as we have seen, are "nervous," "highly strung" individuals. We have also seen the plastic response of the acid secreting glands of the stomach to stress and emotion. Hence the stage is set for the use of sedatives and tranquillisers in treatment. Fats and oils we remember have an inhibitory action on secretion and motility of the stomach, hence the use of olive oil as a medicament in ulcer therapy.

Drugs of the belladonna class affect the autonomic control of the gastric glands and thereby decrease secretion.

So often we see all these methods wrapped up in the one remedy. This is not bad medicine in the light of our present knowledge, but often desirable and based on a highly commendable rationale and design of product, but a little reflection will show that it highlights the unsatisfactory state of our knowledge of peptic ulcer, and that we are but making a great variety of play on the one therapeutic theme.

Acquiring a Pharmacy — A Planned Approach*

By Norman F. Keith

Many a student starts out on a pharmacy course with the intention of acquiring his or her own business at the earliest opportunity; others get the idea later.

That chemists should be successful in business is most desirable, especially from the point of view of the individual concerned, but also for the standing of the whole profession.

The first question to which we must seek an answer is: "Why does a chemist wish to operate his (or her) own business?"

To this question there are two commonly heard answers:

- (a) To make more money than can be earned as an employee pharmaceutical chemist; and/or
- (b) To attain an independent status and develop individual ideas of buying and selling.

This latter idea of being independent is usually qualified by the thought that while independence is considered of some value, this independent status must provide an income greater than, or at least almost equal to, that which would be earned as an employee.

I have asked chemists the question, "How much is your independence worth?" and, not receiving any definite answer, I have then asked, "Would you be happy to receive from your own business 10 per cent. less than you would earn as an employee?" and the answer in all cases has been a definite "No."

We can take it then as being almost 100 per cent. correct that the aim is for an income at least as much as can be earned.

The working proprietor of a pharmacy should be considered of not less value than an employee to take his place when absent, i.e., a manager.

In Victoria today the manager's wage for a retail pharmacy in accordance with the Determination of Shops Board, Number 6 (Chemists), is a minimum of £36/5/-, and in all cases (both male and female) this wage is for a 5½-day week of 40 hours worked within definitely stated hours; additional time worked outside those stated hours being paid at either 1½ times normal rate or double time (Sunday work being paid at double time).

In addition to these wages an employee has certain rights of considerable value:

- Three weeks holiday per annum on full pay,
- Seven working days per annum on full pay sick leave (cumulative),
- Long service leave which is equivalent to a loading of 1/80,
- Laundry of white overalls is paid for or 7/- per week is paid to the employee.

These things together add almost exactly 10 per cent. to normal wages and for the chemist-owner to provide these things for himself we find that the income earned must therefore be increased above award wages by 10 per cent. to be on a par.

The accurate calculation is £39/11/11, but for simplification let us say that if the income of a chemist owner-manager (or working proprietor) is less than £40 per week, he is no better off than a manager employed at award rates.

* Footnote: Address given at Victorian College of Pharmacy on September 18, 1961, in the Vick Merchandising Series.

We know of course that some employees are receiving wages above the award rates, and the hospital dispensary registered chemist employees work under a different award, which provides some much higher rates than the Shops Board, No. 6, plus holidays, sick leave, etc.

I have not allowed for increased rates paid to relievers during absence of a manager (or owner) on holidays or when sick; nor in the calculation has any allowance been made for the many extras enjoyed by employed staff, such as morning and afternoon tea provided, use of telephone, time off for hair cuts or shopping. In some cases we hear of living quarters being provided at concession rates, superannuation benefits, etc.

While being aware of all these things, I do not wish to exaggerate the position and intend to be most conservative in figures quoted.

In accountancy language, and that of the Income Tax Department, there is no such thing as "wages" for the owner of a business. The view is taken that the net return from a business belongs to the proprietor and he can theoretically subdivide it in any way he wishes.

So far therefore I have established that unless the working proprietor of a pharmacy has a net income of not less than £40 per week it seems just not worth while being in business, as at that rate he is no better off than an employee being paid at award rates for 40 hours work.

At this point we need answers to some more questions:

1. What size business will produce such a net income?
2. What capital will be required for finance?
3. Should the proprietor receive any income (in addition to what we term "wages") on the invested capital?

The answer, taking the last question first, is "Yes"—the proprietor definitely should receive a return on his invested capital. Why not?

If a chemist is an employee, with no capital tied up in the business where he works, he is free to invest his capital elsewhere and most certainly will expect a return.

How much return should a chemist obtain from capital invested in a retail pharmacy?

An answer to this question can be gained by examining returns from various types of business, as reported in the financial pages of the daily papers. Retail stores, if successful, frequently pay a 12½ per cent. dividend, and many other types of business regularly pay dividends of 10 per cent. or more per annum. In one day the following were noticed (Melbourne "Age," 19/8/61):

Drug Houses of Australia Ltd. (steady, third % successive year)	11½
Gas Supply Co. Ltd.	8
Herbert Adams Holdings Ltd.	10
Mercantile Credits Ltd.	15
Mutual Acceptance Co. Ltd.	15
Scott Bonnar Ltd.	10
Smith Mitchell & Co. Ltd.	10
Victoria Holdings Ltd.	11
Westfield Development Corporation Ltd.	10

I am aware that shares in many of these companies do not give to the shareholder this return on the current purchase price of the shares, but this is the return on the capital actually held by the company and there is



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no doubt that a chemist should receive a minimum 10 per cent. return on the capital invested in his own business—remembering, too, that on any money borrowed from financial institution, bank or estate, etc., he will be paying interest of at least 6 per cent. (maybe 7 or 8 per cent.). Therefore, in addition to wages of at least £40 per week required for the working proprietor, we must also provide a 10 per cent. return on an investment of £5000 = £500 per annum, approximately £10 per week.

I have taken the figure of £5000 to represent capital, as I consider this the minimum investment which can possibly return the figure aimed at (and I will later dissect this figure).

We therefore require to find a pharmacy which has sufficient business to return to the working proprietor for 40 hours work per week, and capital invested, not less than £50 per week.

Experience in the drug trade has established that under the most favourable circumstances, and in the smaller businesses, the net profit (total income) may reach 20 per cent. of the turnover (total takings).

Therefore, in the most favourable circumstances, to produce this net return the business requires a minimum turnover of £250 per week = £12,500 per annum. A business with a less turnover is unlikely to return to the working proprietor an amount equal to what he could earn at award wages for a 40-hour week, plus "interest" or "dividend" on capital invested, and there are many pharmacies operating in Victoria today with a lower turnover. In most cases the proprietor would be better off financially and physically to dispose of the business to the best advantage, invest his capital remaining elsewhere, and work as an employed pharmacist.

There is no doubt whatever that this is correct.

Various bodies produce figures which purport to give an indication of the financial status of pharmacy, but unless it can be verified that such statistics cover a complete cross-section of pharmacy, the resulting figures must be discarded.

The most recent and reliable figures available show that in Victoria approximately 11.5 per cent. of pharmacies have a turnover below £10,000 per annum, with an average turnover in that group of £7850 per annum = £157 per week = maximum possible net return to the proprietor of £32 per week.

Therefore approximately 150 Victorian pharmacies are not returning income to the chemist owner equal to wages he could earn, and there is no return whatever on the invested capital.

Another 25 per cent (350) of Victorian pharmacies show turnover between £10,000 and £15,000 per annum, and it is in this group there are some pharmacies which reach £12,500 per annum, which must be considered as a minimum to give a worthwhile return for a 40-hour working week and capital investment.

These figures are factual and conservative, but we should also consider that a working proprietor (especially in the smaller type business below £15,000 per annum) seldom if ever limits his work to a 40-hour week. Most working proprietors find themselves working regularly a minimum of 50 hours per week. For example—an extra five hours per week when the pharmacy does not close for lunch and the proprietor is the only registered chemist on the staff. True, they usually pause to eat some lunch, but still remain in charge of the pharmacy, with interruptions and calls to the counter—so much so that sometimes the meal is skipped altogether.

This seems no burden to the enthusiastic owner, but if a detached view is taken this is definitely working time, which experience has shown leads more rapidly to gastric ulcers than normal working time.

If the shop remains open till 6 p.m. that amounts to 2½ hours per week and other odd minutes worked before and after normally accepted hours quickly add up.

Many take work home at night—accounts, tally

sheets, price alterations, etc.; some repack bulk tablets at home—and it is conservative to claim a 50-hour working week for most owner-managers.

Why does the working proprietor work 50 hours per week?

Is it for fun? Is it for love of his customers?

If an employee on award rates worked 10 hours overtime he would be paid at award overtime rates for such work an amount of approximately £18/10/-, so it is not unreasonable that the working proprietor should receive additional return for overtime work and even if we allowed wages at the ordinary rate (instead of at penalty rates) he should receive an additional £10 per week for this work.

Wages (no better than employee at award), 40 hours	40
Overtime (no penalty rates), 10 hours	10
Return on invested capital, 10 per cent.	10
	<hr/>
	£60

If the working proprietor receives less than £60 per week for 50 hours work he is underpaid.

The reference to overtime was made to demonstrate that the figure of £50 per week for a 40-hour week is not only reasonable but extremely conservative and I will now return to a more detailed examination of the business with a turnover of £250 per week to see how this can return £50 per week to the working proprietor. The difference between the **cost price** of goods and the price for which they are sold is **gross margin** (sometimes called gross profit). Because of 30 years Guild activity, retail pharmacy in Victoria sells many goods with a 50 per cent. mark-up, some with a lower mark-up, and a very small number with a higher mark-up; the other sources of income being professional fees, and commissions from hospital and medical benefit agencies, and this produces a fairly uniform result in Victorian pharmacies of a gross margin very close to 33½ per cent. of the total turnover (takings).

The figure varies a little, sometimes being as low as 32 per cent. in the smaller pharmacies, which gain little advantage from quantity purchase discounts, and sometimes reaching 35 or 36 per cent. (and occasionally even higher). If the gross margin is less than 34 per cent. it is quite likely the Income Tax Department will send a "please explain," and therefore we could take that figure as a reasonable basis for our calculations.

The pharmacies which show a much better gross margin than this are almost without exception **not** recently established pharmacies (or those which have recently changed owners)—they have developed a specialty over the years, or by slow process may have built up counter-prescribing at profitable rates.

Turnover, £250 per week. Aiming at 20 per cent. net profit = £50.

Gross Margin, 34 per cent. = £85.

Out of this are to be paid rent, wages and other business expenses.

Rent: Many pharmacies are paying rent as low as 2 per cent. of the turnover, but rent is whatever the landlord can get, and frequently is higher; in the smaller type business commonly 4 per cent. of turnover and higher. Any shop built recently will probably be let at about £12 or more per week = 5 per cent. Consider 4 per cent. as commonly paid. Four per cent. of £250 = £10.

Wages: A pharmacy taking £250 per week must have staff in addition to the proprietor, and wages in Victorian pharmacy vary from 5 or 6 per cent. of turnover in the smaller pharmacies; about 8 per cent. of turnover in pharmacies with turnover of £15,000 to £20,000; up to 10 or 11 per cent. in the largest pharmacies. Taking the minimum figure (only possible when proprietor works overtime), 5 per cent. of £250 = £12/10/-. Permanent staff and casual.

Other Business Expenses

Even the most economically minded proprietor cannot avoid other expenses and the total of other items varies from 5 per cent. (as almost a bare minimum) to 8 per cent., consisting of:

Freight and delivery (including motor expenses) by detailed record or percentage, accountancy, advertising, debt collection, depreciation of fixtures, fittings and plant, exchange and bank charges, general repairs and maintenance, including laundry and cleaning; wrapping materials, stamps and postage, insurances (workers' compensation, stock and fittings, such as Guild policy, also P.D.L. chemists' indemnity), printing, stationery, telephone, gas, electricity, subscriptions. Five per cent. of £250 = £12/10/- per week.

Summarised		£	s.	d.
Gross Margin, 34 per cent. (likely maximum)	of weekly turnover of £250	85	0	0
Rent, 4 per cent. of turnover	£10 0 0			
Wages, 5 per cent. of turnover	12 10 0			
Other Expenses, 5 per cent. of turnover	12 10 0			
Total Expenses, 14 per cent. of turnover	35 0 0			
Net Profit—the return to the proprietor as wages for work done and a return on capital invested, 20 per cent. of turnover (per week)	50 0 0			

This result has only been achieved by calculating all expenses as minimum amounts and it is quite obvious that if any of the expenses increase it can only mean a lower net profit.

Having found out what type of business is required we must now consider: "How does one set about acquiring a business with a turnover of at least £250 per week?"

The obvious method is to purchase such a business which is already operating (and to simplify our considerations we will refer to a business with the figure of £250 per week = £12,500 per annum, which is our minimum). The purchaser has to buy:

Stock	£2000—very hard to manage with less on that turnover—quite often a larger stock.
Fittings	£1000—hard to manage with less.
Goodwill	£2500 = net profit for one year = weekly turnover × 10, an asset.
	£5500

Such a business may be purchased outright for cash, in which case the working proprietor only need to maintain the turnover and keep his gross margin to at least 34 per cent. and his total expenses to at least 14 per cent. and his income of £50 per week of 40 hours seems assured; which puts him on an income exactly the same as an employee at award wages, plus the return on his invested capital at 10 per cent. Of course, if he can increase turnover and still maintain the gross margin and total expenses at the same percentages his income will increase (more anon on this subject). And he must make provision for payment of income tax.

If the prospective owner has not got sufficient cash, he may be able to provide some of the capital and persuade a drug warehouse, bank or other type of financier to loan him the balance, but this is not at all likely unless he has at least 50 per cent. of the purchase price. Should he be successful in raising funds and takes over the business, maintains the turnover, keeps control of gross margin and total expenses at the required levels and pays interest on the loan he will find he has an income equal to award wages, plus a return on the portion of the purchase price which he provided him-

self, but out of this income he must earmark £7/10/- to £10 per week for repayment of loans—as well as provision for income tax. Provided he has no holidays and does not become ill, after many years he will be slightly better off.

As well as finding the purchase price of such a business (or any business) extra free capital is essential to meet many additional items of expenditure incurred when going into a new business:

Advertising, signwriting and painting, telephone, gas, electricity, rates, books, subscriptions (Society, P.A.T.A., Guild and Pricing), local bodies, shop registration, insurances—General Guild Policy—Workers' Compensation (compulsory), P.D.L. Chemist Indemnity.

Money for goods and services supplied by the chemist is not all received on a cash basis and allowance must be made for credit to some customers.

Even when all sales in the shop are cash Government accounts in a business of this size will be approximately £300 to £400 per month.

Therefore additional free capital of at least £500 must be available. This is a minimum amount and if alterations are contemplated or new fittings required, or if entry accounts are higher than the figure quoted, a greater amount must be on call.

So far I have discussed purchase of a business with a turnover of at least £12,500 per annum as being the minimum turnover which I consider reaches a break-even point, and then only if the proprietor works no more than 40 hours per week. However we must not overlook the possibility of purchasing a business with a lower turnover, with the idea of improving it so that it reaches at least the break-even point of £250 per week.

No matter how enthusiastic and efficient a working proprietor may be, some businesses have reached a maximum and it is only by experienced judgment and much investigation that a decision can be reached on the possibilities of improvement.

This alone could be the subject of several lectures and I cannot go into more detail tonight.

However, consider a business with a turnover of £10,000 per annum = £200 per week.

Theoretically an optimist would expect this to return £40 per week net income to the proprietor. Some may feel that £40 per week sounds not too bad, but out of this he still has to meet interest and repayment commitments, pay for his own holidays and sickness expenses—plus income tax, etc. There is no doubt he would be earning at least £10 per week below an employee on award wages, and no return on capital invested.

How long can he keep this up?

In one year at that rate he is down at least £500 and unless an investigation has shown that turnover should rapidly increase it could be years before he breaks even. In his enthusiasm he may look forward to a rosy future when his income exceeds that of an employee, but meanwhile he could be thousands of pounds behind.

The other possibility is that he may be in a position to purchase a business with a turnover greater than £12,500 per annum, in which case, provided his business management is good, he should be assured of an income greater than that of an employee on award wages. By the time turnover reaches £15,000 per annum = £300 per week = (theoretically) £60 per week net income, he should be earning the equivalent of award wages, plus something extra for overtime worked, plus a return on invested capital, although the capital invested at that stage is probably more than £5000.

The lowest turnover which will support an additional chemist employee and still provide a correct return to the proprietor appears to be approximately £20,000 per annum, remembering that at that figure a much larger capital investment is required.

We have time to look at a few figures of actual businesses operating in Victoria.

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PREFERRED BY DOCTORS for its effectiveness in common paediatric infections (... plus added protection against monilial overgrowth in the gastrointestinal tract)



PREFERRED BY MOTHERS for its simple and convenient dosage (... may be given directly from the spoon or dropper)



PREFERRED BY CHILDREN for its delicious taste (... exceptionally palatable new flavour—"mixed fruits")

INTRODUCING!...in aqueous, ready-to-use forms

MYSTECLIN-V **SYRUP**
and
PAEDIATRIC DROPS

Squibb Tetracycline Phosphate Potentiated with Amphotericin B

SUPPLY

SYRUP: 60cc Bottles
PAEDIATRIC DROPS: 10cc Bottles
with Dropper

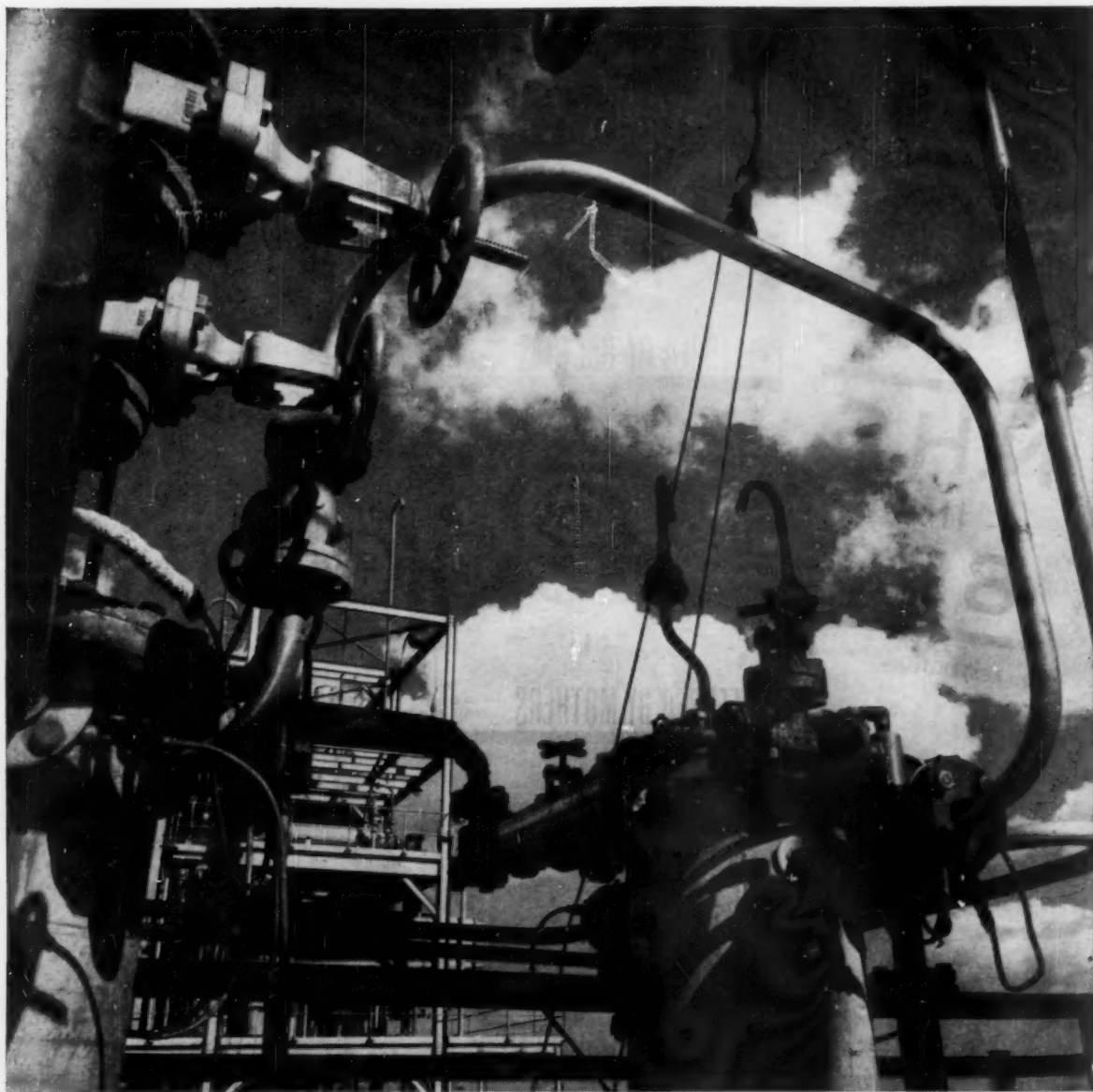


SQUIBB

"MYSTECLIN" IS A SQUIBB TRADE MARK

The Australasian JOURNAL OF PHARMACY, December 30, 1961

1297



Photograph at Rhodes by Max Dupain

More than chemicals come from this Australian plant. From it, too, comes service — quality products, prompt delivery, and technical help for customers. C.S.R. CHEMICALS PTY. LTD.

CSCW

Turnover £13,000 = £260 per week.

A. Stock	£2500
Fittings	1000
Goodwill	2000
Total Value	£5500
	Per week %
Rent	£11 0 0 4.2
Wages	20 0 0 8
Other Expenses	13 0 0 5
Total Expenses	£44 0 0 17.2
Theoretical Gross Margin	88.4 34
Net Income	£44.4 16.8

Turnover £8700 per annum = £174 per week.

B. Stock	£3000
Fittings	850
Goodwill	1500
Total Value	£5350
	Per week %
Rent	£8 0 0 4.6
Wages	10 10 0 6
Other Expenses	10 10 0 6
Total Expenses	£29 0 0 16.6
Theoretical Gross Margin	59 0 0 34
Net Income	£30 0 0 17.4

Turnover £15,000 per annum = £300 per week.

C. City:	
Stock	£4000
Fittings	1000
Goodwill	2500
Total Value	£7500
	Per week %
Rent	£61 0 0 20
Wages	15 0 0 5
Other Expenses	12 0 0 4
Total Expenses	£88 0 0 29
Theoretical Gross Margin	£102 0 0 34
Net Income	£14 0 0 5

Turnover £22,000 per annum = £440 per week.

D. Country:	
Stock	£4500
Fittings	1500
Goodwill	4200
Total Value	£10,200
	Per week %
Rent	£12 0 0 2.7
Wages	52 0 0 12
Other Expenses	22 0 0 5
Total Expenses	£86 0 0 19.7
Theoretical Gross Margin	150 0 0 34
Net Income	£64 0 0 14.3

You can see, therefore, that all businesses do not provide a net income equivalent to 20 per cent. of the turnover and many fall far short of this figure.

Another method of acquiring a business with a satisfactory turnover is to open an entirely new business. The decision to do so should only be reached on information available after exhaustive investigation submitted to experienced judgment.

Over the last few years there has been a surprisingly large number of businesses which have closed shortly after opening, and one can only assume that facts and figures were not examined closely enough or experienced advice was not sought. As one example, a pharmacy opened in what appeared to be an ideally situated group of shops, but after only a few weeks closed because no reasonable amount of business was forthcoming. The reason? The butcher in the group of shops was not satisfactory and the majority of nearby residents were shopping elsewhere.

This also is a subject which could well be discussed in detail over several lectures and therefore you must accept a general statement.

A population of 2000 to 2500 is the minimum number which can support a pharmacy satisfactorily. In most cases this is difficult to assess accurately. In the metropolitan area it is impossible to make an assessment by the number of residences in a defined area (or of the actual number of persons), because there is much movement of shoppers. In a country area it is a little more straightforward, but even there a population count is not always a guide. There may be old-established pharmacies in an area and little change or movement in the residents, who have affiliations with existing businesses and are unlikely to deal from a newcomer. On the other hand, where rapid expansion is taking place, with new residents arriving, any pharmacy open will get a proportion of the business offering.

Or it may be a totally new area developing. Thorough research must be done into rate of development and maximum possibilities. Don't be misled by any local committee or builder desiring a chemist in the area. Make an independent survey.

How much business is likely on opening? £100 per week?

Don't imagine on a small turnover like that to get a net income of 20 per cent. on turnover. Consider:

Gross Margin on £100 = £34 (or less).	
Rent (new shop)	£12
Wages (£150 per annum)	3
Other Expenses	5
	£20

Net Income, £14—£26 per week below wages.

Stock and Fittings

In this case stock and fittings must be provided (perhaps not in a lump sum, as when a business is purchased) and no goodwill is paid for (unless a sum of money has been paid to gain the rental of the shop), but in actual fact the new proprietor is paying for the goodwill which he is building up by the money he is losing while he accepts a net income lower than that which could be earned as an employee, plus return on capital.

New businesses have succeeded in the past and still can succeed if due care is taken to only open a business when a preliminary survey indicates the turnover will in a very short time not only reach £250 per week, but, to make up for the months at a slower rate or turnover, should exceed that figure.

The third method of acquiring an interest in a pharmacy is a partnership—under Victorian law all members of a partnership owning a pharmacy must be registered chemists. Investigation of a partnership proposition should be made to ensure that all partners will be paid regular wages for the hours worked, plus a return on capital—plus holiday arrangements, sick leave, etc. Partnerships can be bought for cash or can be financed. In some cases partnerships have been given when a suitable chemist had no capital to purchase a share. This is legal and such transaction would not be subject to gift duty.

Many aspects of business require legal advice and this is particularly so in regard to leases. For further helpful ideas I commend the P.D.L. booklet, "On Going into Business."



*The most convenient way to lose weight
and avoid regaining it . . .*

Metrecal

DIETARY FOR WEIGHT CONTROL

Continues to give you heavy advertising support

So far you've seen only the "overture" to the giant Metrecal advertising campaign.

Commencing this month there'll be double-spreads and full pages, all in colour, in "The Australian Women's Weekly", "Reader's Digest", and "Vogue", together with a heavy schedule of 60-second television spots in daytime *and* evening programmes.

This huge campaign will boost and then maintain your Metrecal turnover.

Make certain you're prepared for the demand . . . order now from your wholesale distributor.



Edward Dalton Company

(A DIVISION OF CHARLES McDONALD & BEAS JOHNSON PTY. LTD.)

Quality products from nutritional research

120-126 ROTHSCCHILD AVE., ROSEBERY, N.S.W. TELEPHONE: 67-4330

◀ At left is the illustration featured in
full colour in the current nation-wide
Metrecal promotion.



ED164

The Art of Packaging in Commerce and in Nature

By Elsa Lowry

The science and art of packaging has become highly specialised in modern commerce, but Nature has already been using similar techniques since time immemorial.

The science of packaging, appealing as it does to the visual responses of human nature, has acquired predominance among the modern arts of selling.

The packaging of goods has become highly scientific in both technological and psychological fields of research which employ professional investigators hitherto unknown in the world of commerce. Investigation in the psychological field has created the motivation analyst, the advertising agencies and the commercial propagandist. In the technological field there are the pure scientists, the manufacturers of packaging materials of every conceivable kind, such as plastic films and plastic containers. There are the colour consultants and the commercial artists, all forever investigating better methods of producing consumer goods in order to accelerate sales promotion.

The Techniques of Packaging

The modern package must not only preserve the goods in first class condition, but also be the vehicle that achieves mass persuasion in additional attractiveness and desirability for the buying public.

The commercial propagandist depends on radio and television for mass communication, but it is the visual impact of the package itself which is the decisive factor in the final choice of the buying public.

Colour is always most persuasive to the human eye. An interesting experiment was conducted in assessing the public reaction to various coloured packets all containing the same detergent but produced in packets of three different colours. The detergent in the blue packet was almost unanimously declared to produce a "dirty" wash, whilst that in the yellow packet was condemned for various reasons. Whereas the package of twin colours—blue and yellow—was said to contain a detergent excellent in every respect.

Such is one example of psychological reaction to colour.

Motivation research continually seeks to explore the sub-conscious mind. Thus soaps and cleansers in the chemists' shops are now produced in luxury packs, and such items must sell **beauty** and not mere cleanliness.

Among the toothpaste packs we find from time to time the exploitation of such catch-phrases, "It cleans your breath while it cleans your teeth." Such packs usually contain chlorophyll. In response to the water fluoridation controversy, one well-known brand of toothpaste features the additive fluoride to harden the teeth. The advertisers don't miss a trick.

Some brands of cosmetics, for instance, attempt to distinguish in their users difference of status and prestige.

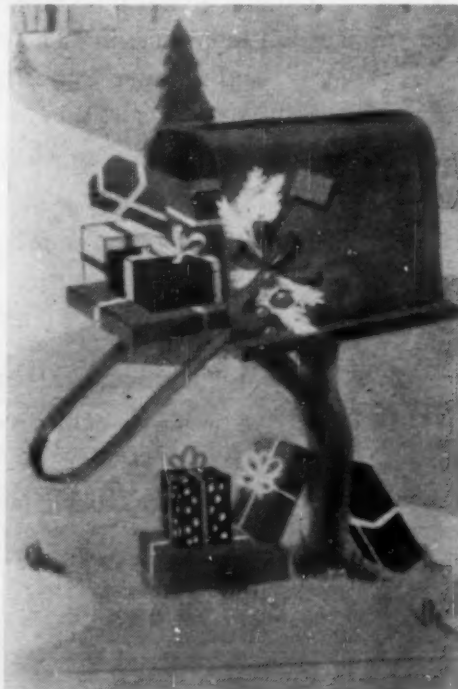
The manufacturers of cosmetics, such as Fields of England, advertise that they have commissioned one of the greatest flower artists of our time, namely, Paul

Jones to paint three camellia designs for the packaging of their products, thus appealing to our sense of beauty.

There also exists in the public mind a loyalty to certain brands, in that in reality it is often impossible to distinguish between the flavour, appearance or performance of certain products of differing brands, such as in the case of cigarettes or even bottled beer.

In order to exploit the modern slimming craze a cough lolly may be permissible, but not candy, so up go the sales of the former. On the other hand, a prima donna may be advertised as taking a certain kind of candy—implying that in order to fulfil an exacting role you **deserve** this candy.

Such are some of the legitimate methods of advertising. But some are not so legitimate, such as in the matter of oversize packaging, such as the advertised



Gift Packages

Photo by E. Lowry.

NEW

an entirely different way to take vitamins

Viterrra^{*} Instant

The whole family will
enjoy the delicious
orange flavour

EACH BOTTLE GUARANTEED
TO CONTAIN 4.5 OZS.

66%

MARK-UP

WHOLESALE, 11/9
RETAIL, - - 19/6

TO ONE LEVEL
TEASPOON OF

**VITERRA^{*}
INSTANT**

ADD
COLD WATER
STIR & DRINK

Each 4.5 Gm. (approx. 1 level teaspoonful) contains:

VITAMINS		M.D.R. ¹	
		Adults	Children
A (palmitate)	5,000 units	125%	167%
D (activated ergosterol)	1,000 units	250%	250%
C (ascorbic acid)	75 mg.	250%	175%
B ₁ (thiamine mononitrate)	2 mg.	250%	167%
B ₂ (riboflavin phosphate sodium)	2 mg.	167%	222%
B ₆ (pyridoxine hydrochloride)	3.2 mg.	ee	ee
B ₁₂ (cyanocobalamin)	3 mcg.	ee	ee
Niacinamide	10 mg.	100%	133%
d-Calcium Pantothenate	3 mg.	ee	ee

Also contains 2.2% cyclamate sodium, 0.5% saccharin sodium, sugar with coloring and other flavoring agents.

¹ Minimum Daily Requirement

^{ee} M.D.R. not determined

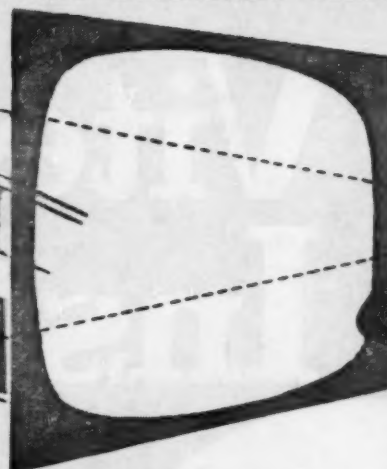
^{***} Need in human nutrition not established

Pfizer

PFIZER CORPORATION
BOX 57 P.O., WEST RYDE, N.S.W.

^{*} Trademark of Chas. Pfizer & Co. Inc.

The eyes are on B.M.L. lines



POPULAR, POWERFUL TV PROGRAMMES NOW WORKING FOR YOU

B.M.L.'s CURRENT TV PROGRAMMES

"LAWMAN" and
"WAGGON TRAIN"
in Sydney.

"THRILLER" and
"ADVENTURES IN
PARADISE"
in Melbourne.

"77 SUNSET STRIP"
and "MAVERICK" in
Adelaide.

"BONANZA" in
Perth.

"ACADEMY THEATRE"
and "ADVENTURES
IN PARADISE"
in Brisbane

— All popular pro-
grammes. Just as FORD
PILLS and MENTHOIDS
are popular household
remedies in many thous-
ands of Australian homes.

B.M.L.'s BIG TV CAMPAIGN is specially planned to secure for you the utmost in consumer interest and the maximum in your sales results. High audience-rating TV programmes are continually bringing the merits of FORD PILLS, MENTHOIDS, etc., right into your customers' homes. Backed by a solid campaign of human-interest commercials at carefully selected times, B.M.L.'s big TV campaign is WORKING FOR YOU.

GET YOUR SHARE OF EXTRA SALES

**Buy wisely—Buy B.M.L. parcels
and make additional profit**

7½% EXTRA DISCOUNT waiting for you on
parcels over £10 in value.

5% EXTRA DISCOUNT to be made on parcels
over £7.10.0 in value.

2½% EXTRA DISCOUNT can be yours on
parcels over £5 in value.

PLUS the regular cash or 30 days' discount
allowed by your wholesaler.

(You can assort your order as you wish.)

**REMEMBER! B.M.L.'s BIG,
new TV campaign for Ford
Pills, Menthoids, etc., is in
addition to heavy contin-
uous use of Radio, Daily
and Sunday Press, and
National Magazines.**

**MAKE SURE YOUR
STOCKS ARE RIGHT TO
SUPPLY THE BIGGER,
HEAVIER DEMAND.**

Order your EXTRA PROFIT BONUS PARCEL from your favourite wholesaler direct or through . . .

British Medical Laboratories Pty. Limited

87-91 CLARENCE STREET, SYDNEY

economy size, family size, super size, king size and mighty size. Often, of course, it pays to buy the larger size, but occasionally it doesn't.

Advertising is, of course, necessary to make any goods known to the public and to induce the public if possible to choose one product in preference to another. However there should be truth in the advertising of the good product. Unfortunately truth is not the prerogative of any one class—academicians do not always tell the truth, nor do politicians, nor the advertisers. There can be no doubt that mass-media should be critically examined, and there should be an authority to prevent monopolies and pedlars of half-truths.

As Aldous Huxley has stated in "Brave New World Revisited," "The survival of democracy depends on the ability of large numbers of people to make realistic choices in the light of adequate information . . . but unfortunately propaganda in the western democracies has two faces and a divided personality."

On the whole it is the good product proven by trial and long use that stays on the shop shelves and continues to sell over and above products of doubtful value and transient use in the community. Pure science continually endeavours to improve the modern product in every respect and usually one may expect the slogan on the packet to tell the truth.

One good example is the improvement in new hair shampoos, the most important constituent being the soapless detergent (in the form of fatty sulphated alcohols), which gives a good lather in hard water. To ensure a lasting foam most of the new shampoos contain a certain percentage of alkylolamide, as well as lanolin and olive oil, etc., for softness, and hexachlorophene as an antiseptic. So one should not be slow to take advantage of these new and great improvements that science is undoubtedly instigating in so many ways.

Technical method is important in the preservation of various products. Vacuum packs and insulating materials, also plastic films are now widely used to protect much merchandise from spoiling and contamination. Plastic films not only maintain all goods in mint condition, but also greatly increase their attraction and visual appeal.

Part II—Packaging in Nature

It is often said in all truth that there is little man discovers that nature did not think of first. And if one explores nature's methods of presentation, and her methods of preserving her wares, one is often astonished at the parallels to be found in the world of nature and the world of man.

Most thermal insulating materials depend on the fact that confined air is the best insulator readily available. If air can circulate then heat and cold is transferred. A vacuum is superior to a sleeve of air, but more complicated to maintain.

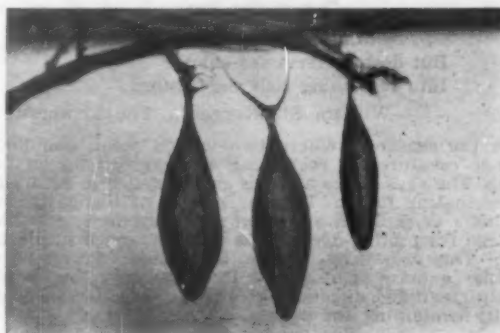
In the light of these facts, most insulating materials are designed so that they contain pockets of air and are usually fibrous or cellular in their nature. Various kinds of plastic foam are used for insulation.

In nature, insulation for the unborn young is of paramount importance. Perhaps one of the most remarkable examples is that of the Mantis's egg-sac. The mantis is that well-known predatory insect sometimes known as the praying mantis, as it waits immobile with forelegs folded in an attitude of prayer, but ever ready to pounce forward and grasp in its spined claws the unsuspecting prey, usually another insect.

The female mantis constructs one of the strangest egg-containers in nature. As the eggs are deposited they are covered with a gluey fluid mixed with air bubbles

and when this hardens the eggs are embedded in rows within a casing like hardened merange. Being permeated with air, this covering forms a perfect insulating material to protect the eggs against both heat and cold, and is proof against rain as well. This capsule, shaped somewhat like the upturned hull of a tiny boat, has a ridge or keel of overlapping plates between which the baby mantids escape from the egg-sac.

Another remarkable example of packaging in nature is the spindle-shaped egg-sac of the Magnificent Spider (*Dicrostichus magnificus*). The egg-sac measures about two to three inches in length, whereas the spider itself does not exceed three-quarters of an inch in size. In



Spindle-shaped egg-sacs of Magnificent Spider (*Dicrostichus magnificus*)

Photo by E. Lowry.

the manner of a vacuum flask, the sac consists of an outer and inner sleeve enclosing air in the intervening space. The outer protective cover resembles crisp varnished paper in texture. The inner sleeve forms a pear-shaped bag of closely felted white silk. The space between the two envelopes is filled with fluffy fibres of white silk. Snugly ensconced within the inner chamber are hundreds of tiny lustrous eggs like sea-pearls. These usually number about 500 in each of, on an average, six sacs, so that something like 3000 spiderlings eventually emerge, yet this spider remains one of our rarest species. The spinning of the egg-sac is miraculous, so perhaps nature feels that miracles cannot be allowed to happen too often.

Yet another ingenious method of packaging in the spider world is demonstrated by the egg-sac of the Huntsman Spider (*Isopoda immanis*), which looks for all the world like a large pharmacist's capsule, being flat and round and of a white papery or plastic texture. Moreover, the edge of the capsule is joined by a neat seam around the outer rim.

There is no end to the ingenuity displayed in spiders' egg-sacs, which represent some of the most efficient packaging in nature.

Butterfly Pupae

The intermediate stage of the butterfly's life history—the pupal or resting stage between caterpillar and butterfly—represents some of the most beautiful examples of packaging imaginable. The metamorphosis or period of transformation from larval to adult butterfly form, involving the breaking down and reforming of tissues, is one of the most mysterious processes in nature; indeed, rivalling the alchemist's dream of the transmutation of the baser metals into gold.

Some of the chrysalids thus formed are truly beautiful objects; such is the green and gold-spotted chrysalis of the Wanderer Butterfly (*Danaida plexippus*), reminding one of a golden doll-like mummy from Tutankhamen's tomb. The common Black Crow Butterfly (*Euploea corinna corinna*) turns its metamorphosis into a festive occasion, and the cocoon at various stages of development changes from old ivory to glinting silver, then to gleaming obsidian black in the final stage. It is a quaint sight to see a shrub covered with dangling silver baubles resembling those on a Christmas tree when these cocoons are plentiful. It is interesting to note the word chrysalis is derived from the Greek word meaning gold—*khrysalos*.

Out of the Sea

"... Nothing of him that doth fade
But doth suffer a sea-change
Into something rich and strange."

—William Shakespeare, "The Tempest."

On the seashore, where two worlds meet, one finds strange creatures in rock pools and washed up on the beach. The eggs of sea animals are packaged in a variety of fascinating forms. The egg masses of the gastropod *Mullusca* or shellfish are often contained in a jelly-like sausage resembling deep-freeze foods wrapped in plastic film. The egg-string of the Sea Hare (*Aplysia*) resembles a mass of spaghetti in appearance, but when highly magnified displays an intricate structure of great beauty containing the eggs.

A remarkable object often found washed up on Australian seashores is the horny black spiral of the Port Jackson shark's egg (*Heterodontus portusjacksoni*), the first specimens of the shark being obtained in Port Jackson by the crew of the First Fleet under the direction of Governor Phillip. Their eggs, about six inches long, have a decorative spiral flange.

But in considering the protective devices used in the infinite resources of nature for the packaging of her creatures one must not overlook those microscopic members of the plankton groups; especially the Foraminifera—tiny floating cells with sculptured shells of lime. Pure natural chalk consists of fossilised shells of Foraminifera. Also among the plankton are to be found the Radiolaria—tiny floating cells with shells of silica. Radiolaria shells falling through the ocean waters for countless ages form the ooze of deep ocean beds.

Sea-weeds washed up on the shore often bear oval structures mistaken for fruits; actually the berry-like structures act as floats. When a float is ruptured it is found to be empty of all but packaged air. Often beading the rocky platforms of the seashore are found the brown sea-weeds known as sea-grapes (*Hormosira*) or strings of bladders with small pits on the surface from which are produced the spores. Among the brown sea-weeds are giants of the plant world that grow in deep water and reach the surface by means of floats or packaged air distributed along the tough stems, which may be 1000 feet long.

Seed Distribution

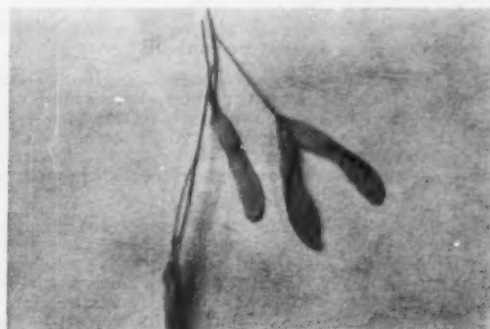
Nature exhibits her greatest ingenuity in the distribution of seed for the procreation of the plant world. Her artifices are almost endless; her packaging techniques meet every requirement necessary to success.

A seed results from the pollination of the ovule of a flower by a pollen grain. When the seed has formed, the plant, according to its type, carries out the ways and means of broadcasting the seeds. Some seeds are wind-borne, others are exploded forth often quite forcibly when a seed vessel explodes to liberate the seed. So-called "dust" seeds merely ride on the wind, but others

contrive to become airborne either by wings or by means of parachute devices like thistle and dandelion seeds.

Seeds of many of the larger trees use the glider principle of locomotion; such trees are the sycamore, ash, lime and maple. These seeds bear wings often twisted like propeller blades, which cause the wing to spin as it glides. Anyone who has tarried by a field of thistles on a breezy day may not easily forget the fairy-like flights of thistle seeds glittering in the sun.

Many of the pod-like seeds of the family Leguminosae twist as they dry, and send the seeds forth with quite an explosive sound. Many plants with burr-like seeds make use of animals to do the work of transport, in the development of hooks and spines that cling to the coats



Winged seeds of the Maple (*Acer Negunda variegata*)

Photo by E. Lowry.

of animals or even to the clothes of man. A second method of animal dispersal relies upon the fleshy seed coat being palatable to certain birds. The seeds themselves, being impervious to digestive processes, are eventually ejected by the bird or animal.

Some seeds with hard coats require the action of fire to split the outer casing and allow the entry of moisture to commence germination. Certain Australian bushland seeds need this baptism of fire, such as many acacias and boronias.

Some seeds are long-lived Methuselahs, and can remain viable over immense periods of time. It is said that seeds of wheat found in ancient tombs have been known to germinate when exposed to air and moisture.

The Gift Wrap

It would not be generally supposed that nature undertakes gift wrapping for special occasions. But such is the truth in the case of the male empid flies when they perform their courtship flights before the females prior to mating. The male flies fly up and down with slow rhythm, each empid fly carrying the body of an insect wrapped in a ball of white silk, which is duly presented to the chosen female. (A. D. Imms states that "the web is constructed by the male from a secretion of glands opening on the fore tarsi.")

Thus nature exploits the visual impact of attractive packaging, and there may still be much to learn from natural science that may suggest to the world of business remote from nature new methods of presentation and sales promotion.

As Hamlet remarked: "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy."

NEW PRODUCT ANNOUNCEMENT —

THYROXINAL

Brand of Thyroxine Sodium B.P.

FOR MORE RELIABLE THYROID THERAPY

PHARMACEUTICAL BENEFIT

Item 882

Prescriptions of 100 tablets — 2 repeats

PRESENTATION

Tablets of 0.05 mg. — Bottles of 100 & 500 tablets

Tablets of 0.1 mg. — Bottles of 100 & 500 tablets

The following dosage equivalents apply:

THYROXINAL 0.05 mg. is equivalent to ($\frac{1}{2}$ gr.) 32 mg. Thyroid B.P.

THYROXINAL 0.1 mg. is equivalent to (1 gr.) 64 mg. Thyroid B.P.

FAWNS & McALLAN

AUSTRALIA

Agents for New Zealand: **FRANK STEVENS LTD., Auckland**

climb aboard the

ANDRUMIN

promotion!

"HAPPY HOLIDAYS"
special **BONUS** parcel

open until 31/1/62

BUY: 2 Doz. ANDRUMIN adult
2 Doz. ANDRUMIN junior

BONUS: 8 ANDRUMIN adult

**THIS COLOURFUL
COUNTER UNIT
CREATES
IMPULSE
BUYING**



FREE
to pharmacies
in areas where
ANDRUMIN is an open seller!

ANDREWS LABORATORIES PTY. LTD.

12 Primrose Avenue, Rosebery, N.S.W.

How to Fight Drug Addiction

Part II of Debate Published in "The Rotarian," September, 1961.

Part I of the debate was published in the November issue of the Journal.

No one is certain how many addicts there are in the United States, but one can estimate that for each addict there are at least three narcotics "experts" ready to offer a solution to a problem that has become a political football, a subject for soap operas, a pet whipping post, and, importantly, a national menace.

Whenever such "experts" assemble, the recommendation is inevitably made that America must adopt the British "system" because England has licked the narcotics problem through an intelligent application of laws.

Informed Englishmen cringe at this thought, for they recognise that this is another American fairy tale proffered by well-meaning people who have failed to verify their facts. These people cannot be condemned for hoping that England has solved this centuries-old problem. Anyone associated with narcotic control would be delighted for such a solution. But unfortunately, in narcotics, the man who sponsors the idea that what is good for England is equally good for America might as well promote Alaskan winter wear for Florida summer bathers.

There is no English "system," magic or otherwise, that cures or prevents addiction. The English do have an advantage in that their families are more stable and Britons in general have a more stolid sense of social responsibility and exhibit a genuine distaste for addiction that places the addict on the bottom of the British social totem pole.

In 1959, New York's Governor, Nelson Rockefeller, sent two physicians—Drs. Granville W. Larrimore and Henry Brill—to England to make a personal survey. Among the very first Americans who had bothered personally to investigate the system and discover the truth, the doctors discovered that Britain has no free narcotics clinics. Further, as in America, addiction per se is not a national crime, but illegal possession or sale is punishable under British narcotics laws. English doctors do not promiscuously hand out narcotics to anyone who feels he "needs" them, and doctors are forbidden to prescribe narcotics to gratify a habit. Further, ambulatory treatment of addicts is frowned upon.

This question of ambulatory treatment and Government-sponsored clinics is an important one to Americans at the moment, for once again a well-meaning but historically uninformed group is trying to encourage their re-establishment in the United States.

We should have learned our lesson in 1920 when clinics were opened in various parts of the country, but people forget. The project was a total failure. Addicts turned the whole affair into a circus in which they bought and sold narcotics and spread addiction until officials responsible for the clinics literally pleaded to have them closed.

Crime flourished—no surprise to the police, whose statistical information suggests that addicts are not strangers to crime (1960 arrest statistics in California revealed that more than 80 per cent. of arrested addicts had previous criminals records before being arrested

for addiction and almost one-third had served prison sentences. Admittedly some of these were arrested for crimes committed to support their habit, but many were not).

Files are available that provide accurate information concerning the failure and danger of narcotics clinics, but there are those who prefer to let them gather dust.

It is true that English doctors can prescribe heroin, but the total prescription of this drug has decreased in past years. Further, doctors are monitored in their use of narcotics by the Home Office, and physicians who purposefully violate the law are subject to fine and imprisonment.

Organised crime is seldom associated with addiction in Britain primarily because of cultural standards. Nor is this the only significant difference. The cultures of our two countries cannot be compared for there is a marked dissimilarity in composition, attitudes and philosophies.

America has a large number of anti-social personalities who utilise narcotics as another avenue of escaping a society they cannot tolerate. In England, to the contrary, children are taught that illegal use of narcotics is evil. As a result, the addict is an anathema in Britain.

Using 1956 statistics, let us compare the social stability of our two countries. In that year America's divorce rate was 2.4 per 1000, as compared to Britain's 0.28. Major American crimes per 1000 numbered 20.8, compared to England's 4.7. Social attitudes of citizens are at such variance that in England the bobbies carry no guns and rely on citizen support when they are in trouble. This picture is quite different in America.

In 1956 America had 3952 problem drinkers for each 100,000 population, as compared with Britain's 1100 per 100,000.

Narcotic addiction needs a triad for its support: available narcotics, an environment that breeds addiction, and susceptible people. England lacked one, if not two, of these. America has all three.

There is one law, however, that causes no end of confusion. As a result of the recommendations of the Rolleston Committee in 1926, England does permit certain addicts to receive a minimum of legitimately administered narcotics provided every effort has been made to cure their addiction and total failure has been met in these attempts. These addicts fall into two groups: those who would develop serious symptoms if subjected to complete withdrawal, and those who can lead a fairly normal life with small doses of narcotics, but who could not function well if the narcotics were removed.

This law, according to the Interdepartmental Committee on Drug Addiction for the British Government in 1961, "has given rise to unfortunate and persistent misunderstanding. It has been taken in error to mean that addicts in Great Britain are entitled to receive supplies of dangerous drugs and that this involved the registration of the addict with some central authority. We think that the Rolleston Committee never meant to encourage a system of registration and from the evidence we have

received it is clear that the Home Office has never acted in that belief and has never put such a system into force. The continued provision of supplies to patient addicts depends solely on the individual decision made by the medical practitioner professionally responsible for each case. We are strongly opposed to any suggestion that 'registration' would be either desirable or helpful."

The authenticity of the so-called "stabilised addict" has been questioned and the Committee acknowledges this. It points out, however, that the cases involved are patients who are physically ill and need the drug for constant relief of pain. None of these patients reported by the Committee is receiving heroin, the American addict's choice, because of its effects on the mind, and all these addicts are receiving doses in amounts that would fail to satisfy American addicts.

Officially Britain refuses to recognise that addiction is a problem in the British Isles. It feels this state exists because of the healthy attitude of its citizens. Presumably, then, social stability should be the vital factor and laws of secondary importance. This presumption is verified if we observe the effect of British narcotic laws in other areas of the Commonwealth.

Hong Kong is a classic example of the failure of the British "system" in a heterogeneous, variable cultured population. According to a 1959 British White Paper, Hong Kong is a hotbed of illegal narcotic trafficking. More than 28 million dollars' worth of contraband drugs pass through this colony each year. In 1957, some estimators stated that up to one out of every four adult male Hong Kongese was a drug addict. There are four times as many addicts in this one British colony as in all the U.S.A.

Hong Kong has British laws, but it lacks British culture. It has a surplus of narcotic-prone individuals. And addiction threatens to devour the city.

While envying Britain its social solidarity and the damper it places on certain social problems, one cannot help noting that even England is evidencing a breakdown in its social structure. Juvenile delinquency is appearing and the solid ethnic population is being diluted by immigration. As this occurs, many observers wonder if the British may not be whitewashing their narcotic problems.

Even the carefully phrased 1961 Committee report indicates that there is some evidence, though small, of an impending series of problems in controlling narcotic distribution (a third of England's reported addicts are members of the medical profession) and Britons are evidencing an alarming tendency to overdose themselves with tranquillisers, bromides, barbituates, amphetamines, and other addicting or habit-forming drugs. Further, marijuana is becoming popular with those of the younger set who live in areas where family solidarity is less stable.

Noting this, the British press has taken some sharp jabs at the official reports. One newspaper admitted that Britain, which manufactures three-quarters of the world's supply of heroin, has shown a definite increase in home consumption of this drug.

Today (1959) the Dundee "Weekly News" reports there are 442 drug addicts in Britain registered with the Home Office. They come from all walks of life. But many are not registered, preferring to mingle with dope peddlers and pay their fantastic prices to consulting a doctor or admitting their shame to their families. This goes on until the law catches up with them.

In addition to registered addicts, doctors have a "black list" of some 2000 people constantly seeking to obtain drugs, for pride keeps the Englishman from registering as an addict. Last year more than 1000 people died from

sampling new drugs, using them for purposes for which they were not intended, and 500 others were severely poisoned.

"Yes, There is a Drug Menace in Britain," the London "Daily Herald" headlined on November 25, 1957. Not only is there a menace, but it is larger than authorities will admit and it is still growing. It's easier to obtain drugs now than ever before in Britain's major cities, the reporter, former Judge of Bangkok's International Court, Gerald Sparrow, commented. More and more youths are experimenting. Further, a majority of registered addicts who obtain a minimum supply from their doctor are getting illegal supplies as well.

If drug addiction in Britain is not going to follow the American pattern, Sparrow states, and there are disturbing signs that it may, the attitude of the law must be changed, the hush-hush policy must be ended, and Scotland Yard's narcotic section must be reorganised, strengthened, and given tougher legal weapons to fight narcotics.

So, who is right—the press or the official releases? It's difficult to tell. But it is not hard to recognise that something must be done to curb a menace that can destroy all civilisation. Permissiveness and free narcotics, Government-sponsored clinics and social approval of the addict, are tools for the enemies of democracy, not means with which we can end the problem.

There are those who recognise this. The Russian textbook on psychopolitics, "Brainwashing," lauds this system:

"By making readily available drugs of various kinds, by giving the teen-ager alcohol, by praising his wildness, and stimulating him with sex literature . . . the psychopolitical operator can create the necessary attitude of chaos, idleness, and worthlessness into which can then be cast the solution which will give the teen-ager complete freedom everywhere. If we could effectively kill the national pride and patriotism of just one generation, we will have won that country. Therefore, there must be continual propaganda abroad to undermine the loyalty of the citizens in general and the teen-ager in particular."

Drugs can do this!

Drugs can kill the initiative. For the addict, contrary to inaccurate statements that many addicts can live worthwhile lives while continually anethetising themselves with narcotics, lives for but one thing: his next shot of drug. It is his whole life, his entire being . . . and his family, his church, and his country can go to hell if his next injection is placed in jeopardy.

Adopt the English "system" as a cure for American narcotic problems? A dream! There is no English "system" that provides a magic cure for addiction.

Promote free narcotics through Government-sponsored clinics? A nightmare! As before, this can but lead to a perpetuation of a national menace. Allow the permissive approach . . . like the two little boys each telling his parents, "But my buddy's daddy says he can play with matches!" Never . . . as long as intelligence predominates over well-meaning but misdirected emotion.

But some day the "system" proponents may win. Some day, as a sociologist recently commented, we may see addicts walking down the street high on their poison and view them with the same attitude with which we view the presence of women in bars.

Some day, because we placidly sat by and let the well-meaning but misinformed ply the "if we can't lick 'em, let's join 'em" philosophy, we may have socially approved narcotics, just as we have socially approved alcohol.

When that day comes, heaven help us all!



U.R.A. OINTMENT

A valuable local anaesthetic and styptic ointment for use in the treatment of Haemorrhoids and inflamed mucous surfaces.

In HÆMORRHOIDS the cessation of hæmorrhage and disappearance of pain occurs with such rapidity that it is considered to be the most useful preparation available for such conditions.

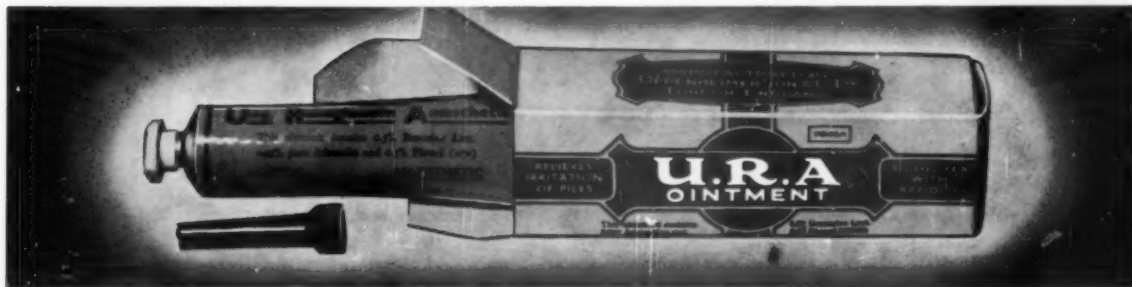
Other indications:

In sore and cracked nipples of Nursing Mothers, it is one of the most useful applications known.

It is recommended as a dressing for cuts, abrasions, burns, slow healing ulcers, chapped hands, and "cold" sores round the nostrils and lips.

Excellent for redness and roughened skin due to sun-burn and wind, also for chapped hands and chilblains.

Gives relief in Pruritis, Hives, Shingles, Herpes and inflammatory conditions generally.



in 1 oz. and 2 oz. tubes with nozzle, also $\frac{1}{2}$ oz. and 16 oz. jars.

BONUS: 1 per dozen U.R.A. Ointment; 4 per 3 dozen U.R.A. Ointment

Manufactured in the laboratories of

OPPENHEIMER, SON & CO. LTD., LONDON

AGENTS: MUIR & NEIL PTY. LTD., SYDNEY—MELBOURNE—AUCKLAND



CALISTAFLEX

PRE-SELLS WITH BIG SUMMER SATURATION CAMPAIGN

During January a big Calistaflex promotion will pre-sell this popular product for you with a heavy radio saturation promotion using 70 stations broadcasting over 2,500 announcements!

EVERY CHEMIST SUPPORTED

Throughout Australia every Chemist will be assisted by this intensive Calistaflex Advertising—country Chemists by their own local stations.

DISPLAY NOW CHECK STOCKS

Benefit from this **Chemists Only** advertising. Tie in with this saturation advertising. There's increased profit too—permanent bonus of 1 free with each dozen.

RECOMMEND CALISTAFLEX FOR: Irritating insect bites and stings . . . to protect against sunburn, to ease nappy rash and itching skin rashes. For Quick Turnover . . . Bigger Profit

DISPLAY CALISTAFLEX THIS SUMMER

GLAXO-ALLENBURY (AUSTRALIA) PTY. LTD., MELBOURNE & SYDNEY



"Chemists Only" benefits from advertising.

Guide for Manufacturers and Advertisers

Rules Relating to the Advertising of Proprietary Medicines

(As approved at a recent meeting of the National Health and Medical Research Council. This is a voluntary code and has no legislative implications.)

PREFACE

Advertising is an important commercial procedure in marketing products, and no group of commodities receives more attention in this respect than proprietary medicines.

In the public interest and in the interest of reputable advertisers of these commodities, a code of rules is necessary as a guide in the preparation of advertisements.

Labelling and packaging must comply with State requirements and, before a commercial script is submitted to the censor, care should be taken to ensure that State legislation controlling advertising is not contravened.

While the advertising and displaying of goods in an attractive manner is essential to the vendor in this competitive world, it is also helpful to the consumer if fairly and honestly done. On the other hand, it may be abused in such a way as to deceive the consumer through the employment of unfair and dishonest practices. Such objectionable methods are a disadvantage to ethical competitors and detrimental to trade as a whole.

PRINCIPLES

The following principles should be observed:

- (1) Tell the truth about what is offered in such a manner that its significance will be understood by the trusting as well as the analytical consumer.
- (2) Be sure that the normal use of merchandise or services offered will not be hazardous to public health or life.

SCOPE

This Code applies to proprietary medicines for which a therapeutic use is claimed.

Therapeutic use means use for the purposes of:

- (1) Preventing, diagnosing, curing or alleviating a condition, ailment, defect or injury.
- (2) Influencing, inhibiting or modifying a physiological process.

PROHIBITED

No advertisement may contain any reference to the following:

- Anaemia (all forms)
- Arthritis (all forms)
- Barber's rash
- Cancer
- Cardiovascular disease, including low or high blood pressure
- Central nervous system, diseases of the
- Consumption and allied conditions
- Convulsions of any origin

- Croup
 - Development of the bust
 - Enlarged glands
 - Epilepsy
 - Erysipelas
 - Gallstones
 - Glandular ailments of any kind
 - Goitre
 - Hormones
 - Impotence or virility
 - Kidneys, diseases of the
 - Lupus
 - Menopausal conditions
 - Menstrual irregularities
 - Phlebitis
 - Psoriasis
 - Purpura
 - Pyorrhoea
 - Raising the height
 - Ringworm
 - Scabies
 - Sexual weakness
 - Thrombosis
 - Tuberculosis
 - Ulcers in the mouth
 - Varicose ulcers
 - Venereal disease
 - Whooping cough
 - and any others which may be determined by the agreement of all parties.
- } Claims for relief of pain are permissible

ACCEPTED WITH LIMITATION

Only claims to relieve the sufferer, or to alleviate the condition, are permissible in the following:

- Asthma attacks
- Baldness
- Bladder conditions (advertising prohibited in certain States)
- Bronchitis
- Catarrh
- Colds and coughs
- Deafness
- Duodenal ulcer
- Eczema
- Fungus infections, except ringworm
- Gastric ulcer
- Haemorrhoids
- Headaches
- Indigestion
- Impetigo
- Influenza
- Overweight
- Rheumatism
- Rupture
- Sinus infection
- Varicose veins
- Vitamin deficiency
- and any others which may be determined by the agreement of all parties.

ADVERTISED LITERATURE

When advertising from any source offers in its copy a booklet—paid or unpaid—the advertiser must submit such booklet or book to the censor together with his proposed advertisement. If the booklet does not conform with these censorship regulations, the advertising copy will not be accepted.

It should not be assumed that new copy prepared is in conformity with rulings on previous copy. It is necessary to submit ALL new copy.

Reference to a published statement will be disallowed if the passage has been removed from its context leading to distortion of the original sense.

UNACCEPTABLE WORDS

Words such as piles, constipation, flushing the kidneys, scabs, excreta, etc., are not acceptable in headings or display lines.

Offensive words are not permitted in any advertising copy.

ILLUSTRATION

Illustrations or diagrams of the human body shall not include the area between the shoulders and the knees, except when approval is specifically obtained. An illustration will be barred if it depicts excessive pain or suffering, or is for any other reason unsuitable for publication.

OVERSTATEMENTS

False and misleading statements are specifically prohibited. Statements such as the following are generally regarded as false and misleading:

- "Vanishes like magic"
- "Disappears overnight"
- "Never fails"
- "Infallible"
- "The ideal remedy," etc.

The use of superlatives will not be approved, nor should disparaging references to other preparations be made, overtly or by inference.

SCIENTIFIC CLAIMS

Where a scientific claim, such as "Laboratory Tested," "Science has proved," etc., is made, concerning which the censor has any doubt, he should consult an appropriate scientific authority.

DIAGNOSIS OR TREATMENT BY CORRESPONDENCE

No advertisement should contain any intimation that the person advertising is prepared to diagnose or treat by correspondence, diseases, conditions or symptoms of ill-health in a human being.

MONEY BACK GUARANTEE

Money back guarantees are prohibited.

ADDITIONAL ITEMS, not involving the use of proprietary medicines

No advertisement may contain any references to therapy by HYPNOSIS or to RESTORATION OF MORE EFFECTIVE EYESIGHT BY EYE EXERCISES.

AMENDMENT TO RULES

This Code is to be revised every five years or as required, by the agreement of all parties.

THROAT SWABS

Of all the mysteries of medicine to the lay person, one of the greatest is the value of the throat swab. Our child gets a temperature and inflamed tonsils, and my husband, a conscientious paediatrician, orders an antibiotic and takes a throat swab. The throat-swab is sent to the laboratory and I arm myself with a bottle and teaspoon and prepare for a week of disturbed nights. After five days my husband says the antibiotic was not the best one according to the report, and we are to change to eight-hourly administration of another type. After a few days he takes another throat-swab. Why, I ask—so that we may know in a week's time how he was today? I get a pitying smile.—"The Lancet."

The charge for these Advertisements is 5/- per line, with a minimum of 15/-, payable in advance.

Mrs. G. HEATHERILL: P.B.A. AND P.M.S. SCRIPTS priced at 32/6 per hundred. 48 hours service. All claims given prompt attention and submitted for payment. 23 Page Ave., Garden City, S.C.7. 64 2102.

TO LET

PHARMACY, established business situated in CROYDON MARKET Drive-in Shopping Centre. Available for immediate possession. Business has been established four years and open on Monday, Wednesday, Thursday, Friday, Saturday. A ready made business all fitted out in modern style. No ingoing, moderate rental. Lease. Apply ALLAN BROWN—CROYDON MARKET, CROYDON (VIC.). Phone 32 045.

GOLDEN OPPORTUNITY! Vacant Chemist's Shop with fittings. Near Doctors, Schools and Post Office. No ingoing. Long lease.

Apply 333 Sydney Road, Brunswick, Melbourne.

THE UNIVERSITY OF SYDNEY RESEARCH OFFICER AND PART-TIME RESEARCH ASSISTANT—DEPARTMENT OF PHARMACY

Applications are invited for the unmentioned positions which have been established within the Department of Pharmacy under a grant from the New South Wales Pharmacy Research Trust:

- (1) Research Officer—Candidates should be graduates in Science who have majored in Physical Chemistry and should have had some experience in the pharmaceutical industry. The successful applicant will work on a project concerning the physico-chemical aspects of pharmaceuticals. Salary will be at the rate of £2,000 per annum plus cost of living adjustments (at present £47 p.a. men, £36 p.a. women).
- (2) Part-time Research Assistant—Candidates should have a degree in Pharmacy. The successful applicant will work on certain aspects of drug absorption. Salary will be at the rate of £1,250 per annum.

In each case, the appointee will be expected to begin work early in 1962, and his appointment will terminate on December 31, 1962. The successful applicants will work under the direction of the Professor of Pharmaceutical Chemistry, from whom further information may be obtained. Applications, giving details of qualifications and experience and names of referees, should be forwarded to reach the undersigned by January 22, 1962.

M. A. Telfer, Registrar.

Sydney, December, 1961.

now!
BAND-AID
 (TRADE MARK)
plastic STRIPS
 look...feel...flex
 like a second skin



BAND-AID Plastic Strips
 will be promoted
 with Powerful
 National Advertising!

MAGAZINES—Large spaces, lots of colour and frequent insertions in "Women's Weekly" and "Woman's Day."

TELEVISION—Hard-selling 30-second and 60-second commercials are featured in top-rating shows in peak-viewing Sunday night time channels, all States.

RADIO—Saturation spots scheduled over 66 stations throughout Australia, plus announcements in the "Quiz Kids," will sell BAND-AID Plastic Strips.

**PREPARE FOR BIG
 BUSINESS WITH THESE
 EFFECTIVE SELLING UNITS**



one dose a day

THE CLOSEST
APPROACH
YET TO
THE IDEAL
DIURETIC

APRINOX

Aprinox is the latest addition to the benzothiadiazine group of the oral diuretics and is the benzyl derivative of hydroflumethiazide (Bendrofluazide is the B.P. Commission Approved Name).

Only a single daily dose is needed for initial treatment while for maintenance the dose need only be given once or twice weekly.

Aprinox tablets are supplied as follows:—

'APRINOX 5 mg.' tablets—containers of 50 and 500.

'APRINOX-M' (2.5 mg. tablets)—containers of 50 and 500.

Detailed literature and professional sample gladly sent on request.

Available as a benefit on the N.H.S. Item 106.



BOOTS PURE DRUG CO. (AUSTRALIA) PTY. LTD.
MELBOURNE BRISBANE ADELAIDE PERTH SYDNEY HOBART

PHOTOGRAPHIC SECTION

SELLING PHOTOGRAPHY—Article No. 5

Contributed by Kodak (Australasia) Pty. Ltd.

In most pharmacies throughout Australia the months of January and February represent the busiest period for photo-finishing. During the Christmas and pre-Christmas period many thousands of cameras and films have been sold, and now holiday-makers are busy taking pictures of their holiday fun. All this means plenty of photo business—are you ready to secure your share of these profits? This month's article provides some useful selling tips on how to get the most out of D. & P.

The Photo-Finishing Counter

In the average photographic shop D. & P. (including colour processing but excluding Kodachrome) represents about 30 per cent. of the turnover. Large inland chemists who sell considerable quantities of high-priced equipment may find the percentage of D. & P. less, but dealers at the seaside will obviously find it more.

D. & P. represents a very profitable business, as the sum (in pence) below shows. Let us consider an eight-exposure roll of 120 and 620 film.

Table A (in Pence)

	Stock Investment	Selling Price	Gross Profit
Black and White Film (VP120)	29	41	12
Sales Tax	7	7	—
Developing	—	30	7.5
Printing (8)	—	56	14
	36	134	33.5

This represents 93 per cent. gross profit in investment on the film itself.

We can use a similar argument for colour film, but this time, in view of the larger sum involved, we shall deal in shillings:

Table B (in Shillings)

	Stock Investment	Selling Price	Gross Profit
Colour Film (C120)	10.8	15.3	4.5
Sales Tax	2.7	2.7	—
Developing	—	8.5	2.1
Printing (8)	—	36.0	9.0
	13.5	62.5	15.6

This represents 116 per cent. gross profit on investment, but profit is even higher at 149% if 12 exposures are obtained on the roll.

Apart from the profit angle, the sale of a roll of film should represent the first of a series of three visits to your premises.

1. Purchase of film.
2. Film left with you for processing.
3. D. & P. collected after processing.

On each of these visits the customer is exposed to everything else that you sell and display. Naturally it is up to you to see to it that the customer does, in fact, come back to you for his D. & P.

You have sold your film and suggested that your customer comes back to you for his photo-finishing. Now visualise the customer coming back to your shop. Don't

just take the film from him and give him a receipt; say something like, "Will one Super-Size Print of each be enough?" This will have the two-fold effect of (a) confirming that the customer required prints and did not intend to have the film developed only, and (b) introducing the thought of two or more prints from each negative. It is possible that if the pictures were taken at a party or with friends, they would also like copies, and by ordering two or more when leaving the film, time will be saved and your profit increased.

When you ask the customer for his name, get his address as well. In this way you can later use your D. & P. order pad as a mailing list. An incidental advantage of getting the customer's address is the chance of dropping him a card should his work remain uncollected for a month or so.

Do not forget to offer your customer another film when he brings in his exposed film for processing. If he does not buy a film it is a good idea to mark his D. & P. order with a small cross. When he collects his work and you see the cross on his order docket, you can flatter him by "remembering" that he didn't buy a film on his previous visit. An "Ah yes, Mr. Smith, you decided to wait until you saw these results before buying another film—didn't you?" or a similar comment will almost certainly bring you a film sale. If you make the sale and have handled your customer correctly you can look forward to more D. & P. business from him.

When you receive D. & P. from your photo-finisher, take the trouble to look through it and arrange for one of the best prints to be the first one visible when the customer looks at his order. Also, if there is something seriously wrong with any negatives do your best to see that the customer has an opportunity to discuss the trouble with you. Photographs are very personal things, and although you have in fact looked at each order previously, when the time comes to hand it out, give it to the customer either in a closed wallet or in the wallet opened with the prints the correct way up for the customer to look at.

Given the chance to discuss your customer's negatives, the opportunities for extra sales are numerous. A few are suggested below:

1. Enlargements from best negative(s).
2. Close-up lens for real close-ups.
3. Lens hood for photographs against the light.
4. Flash.
5. Camera repair.
6. How much better in colour!
7. New camera.

What we have said above refers to black-and-white photo-finishing, but almost all applies equally to colour D. & P.

D. & P. is V.I.B.—very important business. By properly handling your D. & P. customers, by constantly helping them to get better pictures, by showing an interest in their photo progress, and by passing on your personal enthusiasm for photography, you can cultivate the endless repeat business which D. & P. offers.

prescription proprietaries
and new drugs . . .



by

Geoff K. Treleaven,
Ph.C., F.P.S.

PHARMACEUTICS DEPARTMENT,
VICTORIAN COLLEGE
OF PHARMACY

A NEW ANTI-EMETIC DRUG

Thiethylperazine

Thiethylperazine is chemically (2-ethyl-mercapto-10-[3'-(1"-methyl-piperazinyl-4")-propyl-1'] phenothiazine as the dimaleate salt).

Action: The site of action of thiethylperazine is in the central nervous system. It acts by suppressing the vomiting centre and the chemoreceptor "trigger zone." The drug is virtually without tranquillising or sedative action.

Uses: Nausea, vomiting and vertigo.

Proprietary Preparation: Torecan—Tablets, Suppositories and 1 ml. Ampoules. All containing 10 mg. (8.5 mg. base).

ANABOLIC DRUGS

Approved or Generic Names	Proprietary and Other Names
Androisoxazole	Neo-Ponden
Fluoxymesterone	Halotestin, Ultandren
Mestanolone	Androstalone, Methylandrostanolone
Methandienone	Dianabol, Methandrostenolone
Methandriol	Methylandrostenediol, Methyl-Diol, Stenediol
Methylandrostenolone oenanthate	Primobolan Depot
Nandrolone decanoate	Deca-Durabolin
Nandrolone phenylpropionate	Durabolin, Norandrostenolone phenylpropionate
Norethandrolone	Nilevar
Oxymetholone	Adroyd, Anapolon
Stanolone	Anabolex, Androstanolone

Androgens, in addition to their specific androgenic effect, also have an anabolic action, promoting formation of protein and other tissues. Earlier the virilising action of the androgens had limited the therapeutic use of their anabolic properties, but the newer anabolic steroids have a greatly reduced androgenic action. (The anabolic drugs listed above vary considerably in their androgenic potency.)

Ampicillin is the Approved Name issued in October by the British Pharmacopoeia Commission for the new synthetic broad spectrum penicillin, Penbritin (BRL 1341). (Refer this page in the September issue.)

(Full information regarding the above drugs is included in the "P.P. Guide," 1961, and Supplements.)



TIP THE SCALES WITH SUMMER SALES of SUCARYL^{REG}

The non-caloric sweetener that retains its natural sweet flavour in all cooking processes.

For the diet conscious, whether they be diabetic and health conscious or indulgent and figure conscious, SUCARYL provides natural sweetness with a minimum of calories.

If you too are figure conscious, you will find that SUCARYL, at the new low price, offers you an unprecedented opportunity to really make the most of this large and enthusiastic market. Special deals lift your profit, too. A range of colourful and eye-catching promotional material has just been released to give added stimulation to summer sales.

SUCARYL is available in both liquid and tablet forms in a variety of streamlined packs, to which has just been added the new SUCARYL Pocket Dispenser.

Make sure of your stocks of SUCARYL now.



Abbott Laboratories Pty. Ltd., Box 3698, G.P.O., Sydney

105

Have your stock ready for the BIG Christmas demand!

NATIONALLY ADVERTISED BY HANIMEX



*The Camera with
the built-in brain!*

Durst AUTOMATICA

The Automatica's built-in brain measures available light, sets correct exposure for perfect pictures from time exposures to 1/350 sec. action shots. Even tells you when a tripod is needed!

**You can't take bad
pictures with the
DURST AUTOMATICA**

Imagine it! every single picture as good as the next one; with the Durst Automatica photography is nothing but pleasure—no technical problems to bother about—just concentrate on the best subjects, the right compositions; a gentle squeeze of the button produces perfect pictures every time! With this fully automatic camera exposure errors just can't happen because the Durst's new system of automatic shutter control eliminates time lag—speeds change automatically right to the instant of exposure.



£33/10/-

INCLUDING
CASE

- ★ Fully automatic, semi-automatic or full manual control.
- ★ Ten shutter speeds from 1 sec. to 1/350 sec. and apertures from f2.8 to f22.
- ★ Film speed scale 6 to 400 ASA.
- ★ f2.8 Schneider 45 mm. precision lens.

In the photographic profession Durst has been a symbol of trail-blazing technical achievement for more than 25 years — the Durst Automatica is yet another truly fine Durst achievement.

RIGHT NOW is the time to order this Xmas Special!

HANIMEX'S RETAIL SALES BOOSTING XMAS ADVERTISING CAMPAIGN is geared to create extra sales for dealers at peak of big season and the hard-hitting ads. on the Durst Automatica in the National Press during DECEMBER will give your Xmas sales a great boost . . . particularly if you direct their power to your store by stocking and displaying this easiest of all automatic cameras to use and the easiest to SELL!

**Colour makes
the picture**

HANIMEX

Makes it easy

Perfumes and Extracts of the Past and Present

By Frank A. King

PART XIV: THE ORIGIN OF PERFUMES AND COSMETICS

The art of ornamenting or embellishing the face most probably dates back to the days of the first man and woman, and, if history tells us nothing about Mother Eve and her perfumes and cosmetics, it is probably because such traditions have been forgotten, and not because she did not know the art of make-up.

The art was practised by most primitive races in every part of the world. Several attempts have been made to compile a complete history of cosmetics and also of perfumes, but owing to the lack of knowledge concerning some periods, it had been found impossible to systematise its dissimilar phases and set forth its logical development.

One of the earliest known forms of personal decoration is that of painting the face with bright colours. It is probable that this originated in a desire to instil fear into the hearts of one's enemies, rather than from motives of vanity.

But that which served to frighten men seemed to attract women, so it gradually came about that warriors painted their faces even in times of peace.

However, the savages had this advantage over civilised races—they did not attempt to hide the fact that the adornment of their countenances formed one of the principal occupations of the day!

Among the Fijians, the first dress of an infant is a thick layer of oil paint all over the body, the face being painted red with the exception of the nose, which is allowed to remain in its original colour—that is, black. The affluent person divided the face into four parts, each being painted a different colour. Certain savage tribes were accustomed to paint their bodies on festive occasions half black or white and half red or blue. The Fijians made a special point of decorating their bodies on the days when tribute was collected!

Time brought a development of the art of improving upon nature. Glaring colours gave way to more refined cosmetics and a more complicated method of applying such productions. The pale complexion was made more so, the rosy cheeks received a heightened colour, the eyes were made to appear more brilliant. The good points were thus rendered more conspicuous and the bad features were hidden as much as possible. This was considered real art, and, in Egypt, the worthy Queen Cleopatra took the lead.

It became the daily custom to use cosmetics. Everybody in Egypt used such preparations—kings, queens, rich women and poor women, warriors—and even the mummies were painted.

The Scriptures, under various terms, contain many references to perfumes as such, or as "odours," "sweet odours," "ointments," "sweet savours," and "spices." As is well known, odoriferous plants, woods, gums and other substances are especially abundant in the East, and of most extensive use. The preparations of these in a variety of forms, and no doubt their diversified applications, were as familiar to the ancients as similar products are to modern women—and men!

Perfumes and cosmetics were used in Biblical times for personal enjoyment, domestic luxury and in re-

ligious worship (see Exodus xxx, 35-37; Proverbs vii, 17; and the Songs of Solomon iii, 6). Perfumery was also employed extensively in funeral ceremonies, not only in embalming but in the simpler processes followed by the Hebrews. (See Mark xvi, 1; Luke xxiv, 1; John xix, 39.)

Embalming has been summarised as an operation which, by medicaments, preserves a dead body from putrefaction. The ancient Egyptians were the only people who successfully practised embalming, and the bodies so preserved are termed "mummies," from an Egyptian word signifying "wax." However, other nations have used various processes for the same purpose. The Ethiopians used a transparent resin; the Persians enveloped their dead in wax; the Scythians folded the body in skins; and the Greeks and Romans applied perfumes and unguents. Among the Hebrews, the corpse was first washed (Acts ix, 37), then perfumed, and the head covered with a napkin (John xx, 7), but the wealthier classes adopted the more costly process of embalming.

The bodies of Jacob and Joseph were probably embalmed in the Egyptian manner (Genesis 1, 2, 26).

It is uncertain whether the early Hebrews followed the expensive Egyptian mode of embalming, but in later times the method they used consisted in merely swathing the corpse in numerous folds of linen or other stuffs, and anointing it with aloes, myrrh and other aromatic substances, the respect paid being measured by the amount of costly perfumes consumer.

At the funeral procession of Herod, five hundred of his servants attended as spice-bearers (Joseph's "Antiquities" xvii, 8, 3).

After the Crucifixion, Nicodemus and Joseph of Arimathea brought a "mixture of myrrh and aloes, about a hundred pound weight" (John xix, 39, 40), while the two Marys were prepared to perform the same office.

The Egyptians were prepared to embalm and bury in the most expensive manner the bodies of foreigners, or those destroyed by crocodiles, or drowned in the river Nile. (Herodotus ii, 60.)

Herodotus (ii, 85) says that among the Egyptians, immediately upon a death, the relatives and friends rushed through the streets, uttering bitter cries, and casting dust upon their heads, "after which the body was conveyed to the embalmers, the afflicted family continuing their lamentations at home during seventy-two days." He adds that certain persons were appointed by law to exercise the art, and that when a dead body was brought to them they produced patterns of mummies in wood, painted with various degrees of elaboration and cost. When the selection had been made, and the price agreed upon, the embalmers proceeded with their work.

If the most costly form was selected, they commenced by extracting the brain through the nostrils by means of a curved hook of bronze or iron. In the next place, an incision was made in the side with a sharp stone, and the viscera were removed. The cavity was then cleansed, rinsed with palm wine, and scoured

with pounded aromatics. Next it was filled with pure myrrh, cinnamon, and all other perfumes, except frankincense. This done, the body was steeped in natron, being kept closely covered for seventy days, as it was not lawful to leave it in this state for a longer period.

After seventy days, the corpse was washed and wrapped in bandages smeared with gum. The body was then delivered to the relations, who put it into a case shaped like a human being. Then it was sometimes deposited in a sepulchral repository, where it was placed upright against the wall.

A less expensive method of embalming was to fill syringes with cedar oil, which was injected into the intestines, and after closing the aperture, the body was laid in brine for the specified number of days, on the last of which the cedar oil was removed, bringing with it the bowels and inside in a state of dissolution, and as the natron dissolved the flesh, nothing remained but the skin and bones. The body was then returned to the relations without any further operation.

A third method was to wash the inside with syrmae (supposed to have been compounded of senna and cassia), and after salting the body for seventy days, to return it to the relatives. (See the account by Herodotus.) Diodorus (Lib. I, sec. 91) also gives particulars of the embalming systems.

According to Maillet, the poorest or lowest orders of society were merely wrapped round with a few bandages, and covered with a mat, upon which was heaped a quantity of sand, seven or eight feet in thickness; the surrounding material absorbed all the moisture from the body, which soon shrivelled and dried up.

The first method of embalming cost one talent of silver; and the second, twenty minae, or about a third of the first method; but the charge for the third method is not mentioned.

Concerning the perfumes of the ancient Egyptians, it is only necessary to add that some perfumes naturally exhale their odoriferous principles; that, in others, the "sweet savour" only becomes volatile and perceptible when the substances are rubbed, burnt, or otherwise acted upon by external agency; and that the scent of some of the Egyptian perfumes was so permanent that it has in certain cases been preserved until the present day.

Later on, when Roman civilisation was at its height, the Egyptians still claimed to hold their position as chief makers and users of cosmetics and perfumes. The Roman empresses paid large sums for the mysteries of the "Kosmetikon" which were sold at the Temple of Isis. These preparations, which gave to the face the brilliancy of gold or ivory, were in great demand.

In the old Babylonian capital of Nineveh the people resorted to the process of enamelling the face. First the face was washed and thoroughly dried, then covered with a whitish paste which dried hard and shiny like enamel. At Thebes a box was found which was filled with the many cosmetics in use over twelve centuries before the birth of Christ.

The ancient Hebrews made great use of such preparations for personal adornment, as is shown in the Second Book of Kings (ix, 30). The prophets often refer to this subject, and threaten the punishment of Heaven on those who thus sought to improve the human face.

The inhabitants of Chaldea and Persia, like those of the other civilised countries of ancient Asia, blackened their eyebrows and made their eyes sparkle by means of a special composition. They also had a special method of whitening and preserving their teeth.

Although the Greek men thought more of physical strength than of artificial beauty, the women believed in red and white powders, and the poets go so far as to say that Venus herself on one critical occasion did not hesitate to resort to artificial embellishment.

There is an amusing episode in the life of Phryne which provides some idea of the extent to which the women of that period painted and powdered themselves. After a supper given by Praxiteles, the celebrated sculptor, the guests began to play at kings and queens; the ladies and gentlemen took it in turns to give orders which the others were bound to obey. When her turn came, Phryne ordered some cold water to be brought into the room, and commanded all the ladies to wash their faces! And whereas, after the ablutions, Phryne's face shone with all its natural beauty and freshness, the other ladies presented grotesque appearances.

During the time of the Caesars, the use of cosmetics increased to an alarming extent, and the men soon used as many varieties as the women.

Poppaea, one of the wives of Nero, used to take with her on her travels a troop of some five hundred asses so that she could enjoy the luxury of a bath in asses' milk, which was reputed to have the property of making the skin tender. She invented a special cosmetic for her own use: it was composed of barley-flour, honey, eggs and asses' milk. This paste was laid on the face before going to bed, so that the mixture became a clay mask.

It would be almost impossible to exaggerate the activities of the Roman ladies in their attempts to enhance their beauty and to hide their blemishes. Generally they employed Greek maids, because these girls knew most about the art of "making-up." Phyllis, the attendant of the beautiful Soema, actually wrote a treatise on the most efficacious cosmetics and perfumes.

OVERSEAS COMPANIES SEEK AUSTRALIAN PARTNERS

A notice published in "The Australian Manufacturer" states that several American and English pharmaceutical companies are interested in participating with Australian firms for the manufacture and/or distribution of products such as industrial enzymes, medical and ethical preparations, proprietary lines, sutures, intravenous solutions, transfusion equipment, cosmetics, dyes and dye additives, and toiletry products.

It announces that an Italian firm offers know-how of manufacturing processes, equipment and plants and technical assistance for a range of antibiotics, vitamins, hormones and other synthetic products.

Further particulars are obtainable from the Division of Industrial Development, Premier's Department, Sydney, or by telephoning Mr. K. Bowden, B 056 Extension 2439.

SWEET CORN

The doctor returned from a hunting trip looking depressed and tired.

"What's the matter?" asked his wife.

"I didn't kill anything," he said.

"Well," she answered, "that's what you get for neglecting your practice."

Returning home one afternoon, a mother found her nine-year-old daughter's room in an abnormally clean and tidy state.

"What's all this, darling?" she asked. "I usually have to beg you to put anything away."

"I've come to realise the importance of house-work since I read in the newspaper that two ladies were put in gaol for keeping a disorderly house."

The man was twisting his radio dial when he suddenly felt a sharp pain in his back.

"I think I'm getting lumbago," he said.

"Why bother to listen?" answered his wife. "You won't be able to understand a word of it."

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BIGGER MARKET IN '61



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*the safe...
nonspecific
antipruritic*

CALIGESIC ointment provides prompt relief from the incessant torment of itching. Cooling, soothing, protective and mildly anesthetic, it is also greaseless, water-washable and non-staining. . . . Whatever the cause of the pruritus, CALIGESIC offers safe, symptomatic control.

CALIGESIC will be found highly effective in the treatment of pruritus vulvae, ani, or scrotae; insect bites; urticaria; neurodermatitis; sunburn; diaper rash.

CALIGESIC contains Calamine 8 G., Benzocaine 3 G., and Hexylated m-cresol, 0.05 G., per 100 G.

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PRURITUS

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analgesic calamine ointment (greaseless)

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FAIRFIELD, N.S.W.**





overseas news

GREAT BRITAIN

LONDON, November 29, 1961.

No Withdrawal

It was suggested in the News Letter for November that the possibility of a complete withdrawal from the Service, even if the Ministry's attitude was adamant on terms, was unlikely on account of the decision of Messrs. Boots. This has been proved correct. At a Conference of Pharmaceutical Committees held in mid-November, it was emphasised that at the June conference the question of a complete withdrawal had not been regarded as a possible sanction. Before the Conference, the Co-operative Union had also stated that they could not advise their constituent units to withdraw. The Conference was told of a deputation which had visited the Minister of Health, Mr. Enoch Powell, who had eventually promised to consider most carefully the proposal that pharmacists should have a professional fee for their professional services. Mr. Powell had also agreed that there was ground for the pharmacists' irritation over the statistical methods which had been employed in the past, to determine the costs of maintaining a pharmaceutical service. It was therefore agreed by an overwhelming majority that the Central Contractors' Committee should enter into negotiations to determine a quicker and less cumbersome method of establishing dispensing costs. Some six months have to be allowed for these negotiations, and meanwhile the public relations campaign will be continued. This campaign will be intensified and directed towards the general public. Special showcards for display in pharmacies are being prepared, and press publicity will continue.

Employees Brought In

It was also recommended by the Conference that the National Pharmaceutical Union should give consideration to establishing an associates' section open to all pharmacists employed in the Health Service. This would allow employees to become better acquainted with the decisions of contractors, and allow them to put forward their particular problems and point of view. This resolution, if implemented, might unify pharmacists still further, but, of course, there is the view that the N.P.U. may then be acting on parallel lines to the Pharmaceutical Society.

New Editor

Mr. Robert Blyth has been appointed to the important post as Editor of the "Pharmaceutical Journal." Mr. Blyth has been running the paper since Mr. Pullom resigned in June last, and before going to the "Journal" in 1957, Mr. Blyth was Assistant Editor of the "Chemist and Druggist."

Tape-recorded Lectures

The Pharmaceutical Society's scheme for post-graduate instruction by means of tape-recorded lectures appears to be working well. The "Pharmaceutical Journal" reports that one of the tapes was used successfully at a meeting in Ayrshire, some 400 miles from London. Transparencies were available to illustrate the recorded word, and a member of the Society's scientific staff was also present. This lecture was on tranquillisers, and the text was by Dr. G. R. Boyes, who is qualified in pharmacy, medicine and in pure chemistry. The running time is 40 minutes, and there are 26 slides showing the structural formulae of the drugs under discussion. Arrangements are also being made where questions put by the audience will be answered by the lecturer by letter when the tape goes back to Bloomsbury Square. At present the scheme is experimental, but three other tapes will be ready in the near future. It is hoped, also, that there will be introductory remarks from the Chairman, and duplicated information for members of the audience. All the scientific lectures given at the evening meetings in Bloomsbury Square are now recorded on tape.

Discussion groups are also meeting regularly at the Society's headquarters, and this year the subjects have been tranquillisers, and the chemistry and pharmacology of the hypotensive agents. The next symposium, which will be held early in 1962, will be on "The Influence of Animal Strain Selection and Conditioning on Biological Experiments and Assays."

A Model Dispensary

For many years, possibly since the beginning of classes in pharmacy, there has been some divergence in dispensing as taught there, and the general run of shop dispensing. From the Bristol School of Pharmacy there is reported the establishment of a model dispensary which will simulate conditions as they occur in the best general practice. As well as the normal apparatus found in a pharmacy, and the run of drugs, there will be examples of specialities, and these will be divided into groups under their pharmacological action. A special feature is the "office" which occupies one end of the room. This contains a desk, chair, portable typewriter, telephone, prescription book, registers and reference books, as well as an extensive range of pharmaceutical and medical literature. The prescriptions dispensed copy those in current use, but each bear the wording, "Caution—this prescription is prepared for teaching purposes only, and is not genuine." In teaching, emphasis is laid on the various poison schedules, and on consulting reference books. In the course of dispensing, students are expected to deal with unexpected callers who represent doctors, medical "representatives" and patients. The internal telephone is used for doctors to ring up, and also allows the student to contact the prescriber if difficulties turn up. The model dispensary is particularly useful, as many students nowadays take their full academic course before practical training.

Nuclear Fall-out

Many Britons have been agitated about the possible results of the explosion of the Russian atomic bombs and the consequent presence of radioactive iodine and strontium in milk. These fears have been partly allayed by experiments at the Medical Research Council's Radiobiological Unit, where three scientists have been taking food containing radioactive strontium, both in milk and in wholemeal bread. They have decided that it makes no difference in which form it is taken, and so far they have reported all well with themselves. Milk supplies in Great Britain are being analysed regularly in many areas for their radioactive content.

Advice to Students

Professor E. Shotton, of the School of Pharmacy, London, presenting prizes at the Bradford Institute of Technology, told students that it was necessary that their admission to an adult world would require the thought and action of an adult. They must build on the basis laid by the teaching staff by reasoning and earnest and constructive reading. At college, the student was not faced with the immediate necessity of earning a living and therefore he should take full advantage of the opportunity and time available for liberalising his thoughts.

Professor Shotton also made a plea to experienced pharmacists to accept their responsibilities towards the newly qualified. On successfully completing his academic years, the student must realise that the course, of necessity, left much unsaid. It was not, he maintained, instinctive for the student to realise that part of his professional status was the responsibility he bore to the physician, to the public and to his own colleagues. This realisation would not necessarily be gained during the years at a school of pharmacy. As with other professions—for example, law and accountancy—it should be part of the duty of the supervising pharmacist during the year of practical training to inculcate those professional ideas into the student.

Colleges of Advanced Technology

Professor Shotton also expressed the hope that the Colleges of Advanced Technology would continue to take their rightful place alongside the universities in a manner similar to that on the Continent and in the United States.

At present, a Government committee is considering the need for independence and the awards granted by these institutions. A committee of Principals has recommended that they should be granted charters and run as independent institutions conferring their own awards. Generally, they should be expanded, but not exclusively as institutions for higher professional education and commerce with a minimum of five faculties, and the emphasis on engineering and applied science. They should cease to be concerned with the academic awards of other institutions, such as the University of London degree system, or any local university. The degrees of bachelor, master and doctor should be available. The committee of Vice-Chancellors and Principals of the universities have expressed a similar opinion and this is supported by the Association of Teachers in Technical Institutions. This body expresses the view that there should be full consultation at all stages between the professional bodies and the employers on the one hand and the teachers on the other.

Sterilisation by Irradiation

Dr. D. B. Powell, of the Atomic Energy Research Laboratory at Wantage, told the Guild of Public Pharmacists recently that he was undertaking large-scale sterilisation of catgut sutures, disposal syringes and

needles, scalpels, catheters, aerosol containers and their contents and bone tissue grafts. Glass became discoloured, but other packaging materials were unaffected. The chief difficulty in sterilising surgical dressings was economic, because of the bulk factor; some slight yellowing might occur and there was a loss of tensile strength up to about 10 per cent. in cotton. Repeated sterilisation was, therefore, impracticable. Commercial users were charged 13/9 for a one-cubic foot box, but this might fall to about 4/- if more efficient plant became available. At present, Dr. Powell could not envisage radiation plant being used in hospitals on account of the cost.

Weights and Measures Bill

The Weights and Measures Bill which has been referred to in several earlier News Letters and would, if it became law, cause the apothecary system of weights to be superseded by the metric, may not reach the Statute Book during the present Parliamentary session. Accordingly, the Pharmacopoeia Committee of the G.M.C. is considering asking the Ministry of Health to explore the possibilities of obtaining independent legislation to promote this end and so avoid difficulty in the 1963 Pharmacopoeia. Lord Cohen of Birkenhead, who has been prominent in the National Health Service, particularly because of his work on the Central Health Services Council, of which he is Chairman, and on the classification of proprietary remedies, has been elected President of the General Medical Council in succession to Sir David Campbell, who has held that office for the past twelve years.

The Women's Section

Correspondent: Miss A. K. Anderson

The Federal Council met in Melbourne on November 25. Apologies were received from S.A. and Queensland, Miss Keogh (Victoria) was hostess at dinner, after which a successful meeting was held. Miss V. Garcia (President) was in the chair. Miss Palmer (Secretary, W.A.), Mrs. Curtis (N.S.W.) and Miss Keogh (Victoria), and Miss R. MacGillivray (voting delegate) were present.

THE WOMEN PHARMACEUTICAL CHEMISTS' ASSOCIATION OF VICTORIA

Our Christmas party was held on December 13 at the Australian-American Club.

Victoria takes this opportunity of wishing all States a very happy Christmas and a bright and prosperous New Year.

THE ASSOCIATION OF WOMEN PHARMACEUTICAL CHEMISTS OF NEW SOUTH WALES

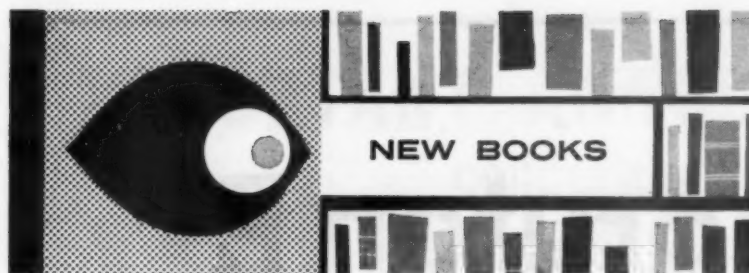
Our annual Christmas party was held on December 2 from 2 p.m. to 5 p.m. in the restaurant at Morton Hall. About 60 members and their friends were present.

During afternoon tea Miss Latham welcomed the visitors and read the apologies received.

Our first President, Mrs. Clarke, was with us and we called her to cut the Christmas cake made for us by Mrs. Latham, to whom we extend our thanks.

Mrs. Feakes made a Christmas pudding, which was the prize in a guessing competition, won by Miss A. Bryant.

Miss Latham described the party as a fitting climax to a happy year and wished all a merry Christmas and a happy, healthy and successful New Year.



Roger's Inorganic Pharmaceutical Chemistry, by T. O. Soine and C. O. Wilson. Seventh edition, 704 pages. Lea and Febiger, Philadelphia, 1961. Australian price, 110/-.

This work, first published in 1930, has been revised now for the sixth time, so that it may be used in conjunction with the United States Pharmacopoeia by American students of pharmacy. For this reason it is of little or no value to any British pharmacist or student.

Although new compounds have been included, little attention has been paid to basic principles or basic chemistry and these have remained substantially unchanged since the first edition.

Although the descriptive inorganic chemistry is well presented, more attention should be placed on modern theories; for example, the section on ionic equilibria, acidity, etc., is inadequate and for a book of this type more emphasis should be placed on simple physical chemistry. The few topics dealt with in the appendix, electrochemistry, colligative properties, phase equilibria, hydrolysis, etc., which are so closely related to inorganic chemistry, deserve more space and a more prominent position. Other topics, such as oxidation-reduction, electrolysis, ionic reactions, etc., should be included.

Space for these topics could readily be found, as too much material in the book is already available in the U.S.P.

British students would be wiser and better served by using a general text-book on physical and inorganic chemistry in association with the British Pharmacopoeia.—G.N.V.

* * *

The Extra Pharmacopoeia, "Martindale"—Supplement, 1961, to Volume ii, twenty-third edition, 1955, and Volume i, twenty-fourth edition, 1958. Pp. xi + 328. Pharmaceutical Press, 17 Bloomsbury Square, London. Price, 32/6 sterling (£2 Aust., from "A.J.P.").

In the seventy-eight years that have elapsed since Williams Martindale produced his first Extra Pharmacopoeia in 1883 few books have more deservedly increased their reputation or grown more to serve the associated professions administering public health.

The original aim of the work to provide pharmacist and physician with extra-pharmacopoeial information on B.P. drugs, to summarise the properties and uses of non-official drugs, both old and new, and to reduce this information within the limits of one volume has proved a continually worrying editorial problem.

The practice has been to publish a new edition of one volume of the Extra Pharmacopoeia every two or three

years, the appearance of Volume i alternating with Volume ii, and if this tradition had been followed a "Martindale," Volume ii, would have been produced this year. Volume ii of the twenty-third edition was published in 1955, and Volume i of the twenty-fourth edition in 1958.

However, as the vast majority of users of the Extra Pharmacopoeia refer in the main to information contained in Volume i and as, since its publication in 1958, some 200 new drugs have been introduced into medicine, it was decided to depart from the tradition and publish a joint supplement to Volume i and Volume ii.

The supplement is divided into eight sections, dealing with sterilisation, disinfectants, blood transfusions, bacteriological and clinical notes, formulae of proprietary medicines, new drugs, manufacturers and analytical data.

The sections "Sterilisation" and "Disinfectants" are a systematic coverage of techniques in sterilisation of pharmaceutical products and surgical dressings developed since 1958. New topics include sub-sections dealing with the contentious issue of hospital sterilisation of blankets and bedding, the contemporary problem of the sterilisation of polythene and plastics and the controversial issue concerning the dispensing of ophthalmic solutions.

A section on "Blood Transfusions" gives a concise account of the clinical uses of blood transfusions, the various blood groups and their determination, incompatibility tests, blood collection, its preservation and storage.

The section, "New Drugs and Proprietary Medicines," is supplementary to Volume i, twenty-fourth edition, and provides information on new drugs and "ethical" proprietaries. In association with the section, "Formulae of Proprietary Medicines," it should prove a useful reference to pharmacist and physician.

An addenda to the former section includes drugs introduced as recently as April this year.

Within this section items are given in alphabetical order, the drugs being distinguished from the products by use of larger type and cross referenced, referring the reader from drug to proprietary brand, and vice versa.

Whilst the information relating to the therapeutic application, toxicity, contraindications and dosage is not presented in the detail or format of the main volume, the concise summary fulfils the requirements of any supplement.

In recommending the "Extra Pharmacopoeia Supplement" to the associated pharmaceutical professions as an invaluable adjunct to the main volumes, it is felt certain the appeal, scope and detail of information will reward its purchase.—J.A.M.

Venoruton P₄

OINTMENT

The Vascular Vitamin for Varicose Disorders

Composition—2% Vitamin P₄ in hydric excipient free of any allergising factor, allowing rapid and complete resorption, leaving no cutaneous trace of the active principle.

The Modern Treatment for Varicose Disorders—Pharmacists throughout Australia are now fully aware of the remarkable therapeutic value to patients who have been treated with Venoruton P₄ Drops.

Tri-(hydroxyethyl)-rutosidum, or Vitamin P₄ was discovered in the research laboratories of Zyma, S.A., Switzerland. Vitamin P₄ reduces capillary fragility and increases capillary permeability.

Essential Adjunct in Treatment—Sera Pty. Ltd., in conjunction with Zyma, S.A., Switzerland, are now pleased to announce the introduction of VENORUTON P₄ OINTMENT as an essential adjunct to the well-known liquid product.

Simultaneous treatment is now possible with these two products—Vitamin P₄ drops taken internally as the basis of treatment and Vitamin P₄ ointment applied externally to bring immediate relief. It should be emphasised that best results can only be obtained if both products are used together.

Method of Application—Venoruton P₄ ointment is massaged into the affected area, gently rubbing with an upward motion. In the case of an ulcer, it must not be applied directly but around the ulcer. In cases of cellulitis, Vitamin P₄ ointment facilitates therapeutic massage and improves its effect.

VENORUTON P₄ OINTMENT (AN ANALLERGIC HYDRIC OINTMENT) MAY BE RECOMMENDED BY THE CHEMIST WITH EVERY CONFIDENCE

INDICATIONS—*Varicose Conditions (in conjunction with Venoruton P₄ Drops):* • During the prevaricose stage • During the stage of apparent varices • In complicated varices • Pigmentation of the varicose plexus or following sclerosis • Varicose ulcers.

Swelling during or following: • Muscular Contusions • Fractures • Insect stings • Fluid swelling, e.g., fluid on knee • Blood swelling, e.g., sprains • Loss of feeling in the fingers.

PACKINGS—40 gm. size, 14/6 (retail); 100 gm. size, 28/6 (retail)

VENORUTON P₄ OINTMENT WILL BE AVAILABLE AS AND FROM 29th JAN., 1962

NOTE: AVAILABLE IN ALL STATES EXCEPT VICTORIA

Sole Australian Agents: Sera Pty. Ltd., 104 Hunter Street, Sydney

VEN268

IMPORTANT ANNOUNCEMENT concerning **Venoruton P₄** The Proven SWISS Treatment for Varicose Disorders

Since its introduction to the Australian market in March, 1961, Venoruton P₄ has achieved an unqualified marketing success.

Sera Pty. Limited is now pleased to announce a new range of economy sizes and a reduction in price of the standard 20 ml. pack. This is possible because of the established high volume of sales and the co-operation of the manufacturer, Zyma, S.A., Switzerland.

With this new comprehensive range of Venoruton P₄, sufferers will now be able, at considerably reduced cost, to continue **uninterrupted** treatment—a vital factor in obtaining maximum benefit from this remarkable product. In point of fact, the new 100 ml. economy size will more than halve the present daily cost of treatment. Sera Pty. Limited is confident that an even higher volume of sales will result.

The usual 50% mark up will, of course, still apply to the whole range of Venoruton P₄ treatments.

Commencing 29th January, 1962, the following Venoruton P₄ products will be available:



NOTE:
Venoruton P₄
is available in
all States
except Victoria.

VENORUTON P₄ DROPS

★	20 ml. bottle	14/6	} Taken in water from handy dropper bottle.
★	50 ml. bottle	24/6	
★	100 ml. bottle	45/-	

With the introduction of the 50 ml. bottle, the special 40 ml. economy pack will no longer be offered for sale.

VENORUTON P₄ OINTMENT

Venoruton P₄ Ointment is a new addition to the range and is scheduled for release on 29th January. Leaflets will be available at that time and an important announcement will appear in next month's issue of this journal.

★	40 gm. tube	14/6	} Massage the affected area—giving rapid and complete resorption.
★	100 gm. tube	28/6	

STOCK AND DISPLAY FAMOUS SWISS

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Striking counter units and leaflets available
High-frequency national advertising will keep demand high

Venoruton P₄ is a product of the Medical Research Laboratories of Zyma (Switzerland).
SOLE AUSTRALIAN AGENTS—SERA PTY. LIMITED, 104 HUNTER STREET, SYDNEY

VENOR



CYCLONAL

May & Baker (Australia) Pty. Ltd. advises that Cyclonal brand hexobarbitone tablets 100 x 250 mg. have been deleted from the company's range of medical products.

Stocks are now exhausted, and no further supplies will be available.

NEW VICTORIAN MANAGER: CHESEBROUGH-POND'S

Chesebrough-Pond's International Ltd. has announced the appointment of Mr. F. J. Miller as Victorian Sales Manager. Prior to joining Chesebrough-Pond's, Mr. Miller had been with Johnson & Johnson. He succeeds Mr. S. M. Ross, who resigned.

THE DISTILLERS COMPANY BIOCHEMICALS (AUST. PTY.) LTD.

Mr. W. G. Poole has been appointed Director of The Distillers Company Biochemicals (Australia Pty.) Limited.

Mr. Poole, an Australian, who is both a barrister-at-law and a qualified pharmacist, spent some years with DC(B)L in London before returning to Sydney in the autumn of 1959 as General Manager of the Australian company.

WARNER LAMBERT TOP APPOINTMENT



Mr. Charles B. Bray

Mr. Charles B. Bray has been appointed managing director of Warner Lambert Pty. Ltd., subsidiary companies of which are Wm. R. Warner Pty. Ltd. (pharmaceuticals), Richard Hudnut Pty. Ltd. (cosmetics and toiletries) and Chamberlains Pty. Ltd. (proprietary medicines).

Mr. Bray has been manager of Aspro and General Products Division of Nicholas Pty. Ltd., located in Melbourne. He takes up his new appointment on January 1, 1962, following a visit this month to the Warner-Lambert headquarters in Morris Plains, New Jersey, U.S.A.

Mr. Bray succeeds Mr. W. B. Howard, who is retiring from the position which he has occupied since 1948.

CALISTAFLEX RADIO SATURATION

Commencing January 1, 1962, and until January 31, 70 major city and country radio stations, from Cairns to Hobart and west to Geraldton, W.A., will broadcast 2500 announcements to assist every chemist throughout

the nation to increase sales of Glaxo-Allenburys "Chemist Only" Calistaflex.

This unique saturation is timed to "tie in" with Federal Guild Holiday Needs month with "peak of season" selling messages for Calistaflex reaching out to those at home or on holiday.

It will be good merchandising for chemists to "tie in" with counter and point of sale displays and to assist this purpose an attractive Calistaflex/Holiday Needs window transfer will be mailed to every chemist on December 28, 1961.

Close co-operation from pharmacy will make the Calistaflex Saturation an outstanding sales success.

HAMILTON LABORATORIES LTD.

Mr. A. N. Gould, Sales Director of Hamilton Laboratories Ltd., returned recently from a visit to England and the Continent, where he attended the Achema at Frankfurt. The Achema is an International Exhibition of the Pharmaceutical Industry with the accent on equipment.

During his visit overseas Mr. Gould was able to examine the trend of pharmacy in Great Britain and the working of the British National Health Scheme.

Some members of this company's staff have lately completed 15 years' service, amongst them being the Managing Director, Mr. M. A. Blake. At an informal gathering of the executive and staff of the company on December 1, Mr. Blake presented service tokens to six employees who had completed 15 years' service. The token took the shape of the Hamilton trade mark (the Benzine Ring) and consisted of a pair of gold cuff links with the initials of the staff member inscribed on the Benzine Ring.

AWARD TO STERLING PRESIDENT

Dr. J. Mark Hiebert, Chairman and President of Sterling Drug Inc. and Vice-Chairman of the Board of Trustees of Boston University, has been honoured by the New York Board of Trade for "distinguished service in the field of health."

At its annual dinner at the Waldorf-Astoria Hotel, New York, the Board of Trade presented its annual gold award to Dr. Hiebert. Recipients of the gold award in other years include Sir Winston Churchill and former Presidents Dwight D. Eisenhower and Herbert Hoover.

Dr. Hiebert's association with Sterling Drug, parent Company of Winthrop Laboratories, Australia, began in 1934. His first assignment was as a research attache. Through all of his career with the company research has remained a paramount interest.

Dr. Hiebert was elected President of Sterling in 1955, and, additionally, Chairman of the Board in 1960. On the same day that he received the gold award of the Board of Trade he was re-elected Vice-Chairman of the B.U. Board of Trustees. He is also a Trustee of Columbia University College of Pharmacy, American Foundation for Pharmaceutical Education and American

Child Guidance Foundation, a Director of the Brand Names Foundation, and Vice-President of the Commerce and Industry Association of New York. The professional and other organisations of which he is a member include the American Medical Association, New York Academy of Medicine, Union League Club and the University Club.

ROCKE TOMPSITT TAKES OVER VICTORIA DRUG

Rocke Tompsitt & Co. Ltd., manufacturing chemist and wholesale druggist, of Melbourne, will lift ordinary paid capital about 30 per cent. with the take-over of Victoria Drug Co. Pty. Ltd.

The take-over was announced at the annual meeting on December 5 by the Chairman of Rocke Tompsitt (Mr. A. B. Murie).

Rocke Tompsitt has bought all of the issued capital of Victoria Drug in a deal involving about £144,000 in shares and an undisclosed issue of unsecured notes.

Rocke Tompsitt will issue 424,286 5/- ordinary shares to shareholders of Victoria Drug at a "satisfactory premium."

[Rocke Tompsitt 5/- ordinary shares sold at 6/9 on the Melbourne Stock Exchange on December 5.]

The balance of the purchase price will be met by the issue of 7 per cent. unsecured notes.

Half of the notes will be redeemable on December 31, 1966, and the other half on December 31, 1971.

The issue of shares will lift ordinary paid capital from £342,460 to £448,531 in 5/- units.

Total paid capital, including the 5 per cent. preferences, will increase from £388,460 to £494,531.

Victoria Drug Co. Pty. Ltd. has a city leasehold in Flinders Lane.

The take-over will provide Rocke Tompsitt with suitable premises for city trading after warehouse operations are transferred to Richmond.

Mr. Murie told shareholders that the agreement for the merging of interests was approved on December 5.

New Directors

Mr. R. H. Carter and Mr. E. Hutchings, directors of Victoria Drug, will become directors of Rocke Tompsitt.

Mr. Murie said that both the new directors had had wide experience in the industry.

Mr. S. J. A. Fripp would retire from the board at December 31. However, he would continue to be available to the board in an advisory capacity.

The chairman told the meeting that Rocke Tompsitt's sales since June 30 had been very satisfactory.

He said he expected that overheads would be reduced when the company was operating from the Richmond warehouse.

The new premises would provide an ideal floor layout for warehousing and modern handling equipment.

Mr. Murie said directors expected that the transfer of operations would be made about March next year.

TICKERTAPE . . .

One of the best known names in the Sydney business world is that of Mr. Washington H. Soul, titular head of the biggest chain chemists in the State. Unlike most other tycoons, Mr. Soul has never appeared in the Honours List. He and his putative offspring never will, because Mr. Soul never existed. His overtones of honesty (George Washington and the cherry tree) and spirituality perhaps helped to sell medicine for a company which no longer needs bromides to support it, because as an investment proposition it could easily survive. Washington H. Saul Pattinson & Co. Ltd. comes under the microscope on page 5 (of "Financial Standard").—From "Financial Standard, 8/11/61.

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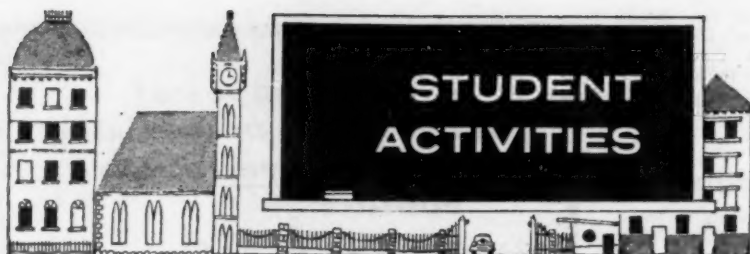
"Point-of-sale" advertising means an immediate upward trend in the sales chart.

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Sales Promotion Division: Window Displays • Showcards—designs and copy • Posters • Ticket-writing • Signwriting • Silk screen printing.
Constructional Division: Shop fitting—store layout • Display units • Cut-out letters (any material) • Exhibition stands • Window units.



NATIONAL ASSOCIATION OF PHARMACEUTICAL STUDENTS OF AUSTRALIA

With 1961 rapidly drawing to a close, much work is still to be completed. The year's Executive discussions together with the reports from the individual States will precipitate at the 1962 Sydney Congress. Looking back on the past year, only those closely connected with the Executive will realise the much discussed and new ideas which have been forwarded. However, they cannot be finalised until passed before meetings at Council, but the fact that these facets have been circulated in full to all constituent organisations means that all will have a thorough grounding in these important subjects, and no time should be wasted on irrelevant discussion.

I think that perhaps the liaison this year between the Executive and the State Association has never been greater or any closer, due mainly to the energetic efforts of our President and Secretary.

N.A.P.S.A. aimed at a high level this year in attempting to surpass all other efforts in previous years. Although some may have or did not actually eventuate, it was not until every avenue had been explored that the matter was not dropped but postponed till more time was available or another approach used. Such a scheme as the overseas delegation falls into this class. However, the matter has not been shelved, for it is N.A.P.S.A.'s aim to properly finance an official delegation to the I.P.S.F. Conference.

I can assure you that overseas countries are extremely interested in the way the National as well as State Associations function.

Word has been received from New Zealand that they are now sending over three observers to Sydney . . . really good show.

As this will probably be the last report from yours truly, I will take the opportunity to say what a tremendous effort the L.P.O.'s did throughout the year. The Student News has never had it so good. Thank you for a job well done.

Finally, to all waiting for results, all the very best. I hope it's a Merry Christmas and may even see some of you in Sydney.

—Mike Johnston, National Publicity Officer,
N.A.P.S.A., 55 Lockwood Road, Erindale, S.A.

SYDNEY UNIVERSITY PHARMACEUTICAL ASSOCIATION

My, hasn't the year flown! Now we have Christmas with us, and our social cup runneth over. S.U.P.A. is going gay this season in anticipation of a frantic two weeks in early January.

Our featured attraction is an evening Boat Cruise on the Harbour, going ashore at one of the more picturesque spots for a picnic supper. Good jazz for dancing on board will be an added feature.

All are looking forward to the Annual Dinners, separate this year for Degree and Diploma students. This could well be the end of an era for Mat. Med. dinners, after over forty very successful ones.

Some very attractive arrangements have been made to entertain our interstate visitors for Congress, and we are looking forward to these ourselves.

This probably will be our last communication before so many of us meet in January. To those who can't get to Congress we wish them better luck next time, and to all. Season's Greetings, excellent results, and a bright and Happy New Year.

—ESTELLE DE BOOS-SMITH, L.P.O.

ADELAIDE UNIVERSITY PHARMACEUTICAL STUDENTS' ASSOCIATION

Very little has happened socially since the last report due, of course, to advent of exams. However, the Committee has still been active in organising and finalising such ventures as the new student library and faculty tie.

The Association has now placed an order for a number of books, and the new year should see it functioning properly, but on a small scale due to the tremendous drain on funds this undertaking incurs.

Other States may be interested to know that A.U.P.S.A. has now its own Association tie in the flesh and has proved very popular. Released a couple of weeks ago, it is a dark grey material with the faculty badge interwoven into it. I dare say they will be prominent at Congress and perhaps some may even be brought over as souvenirs.

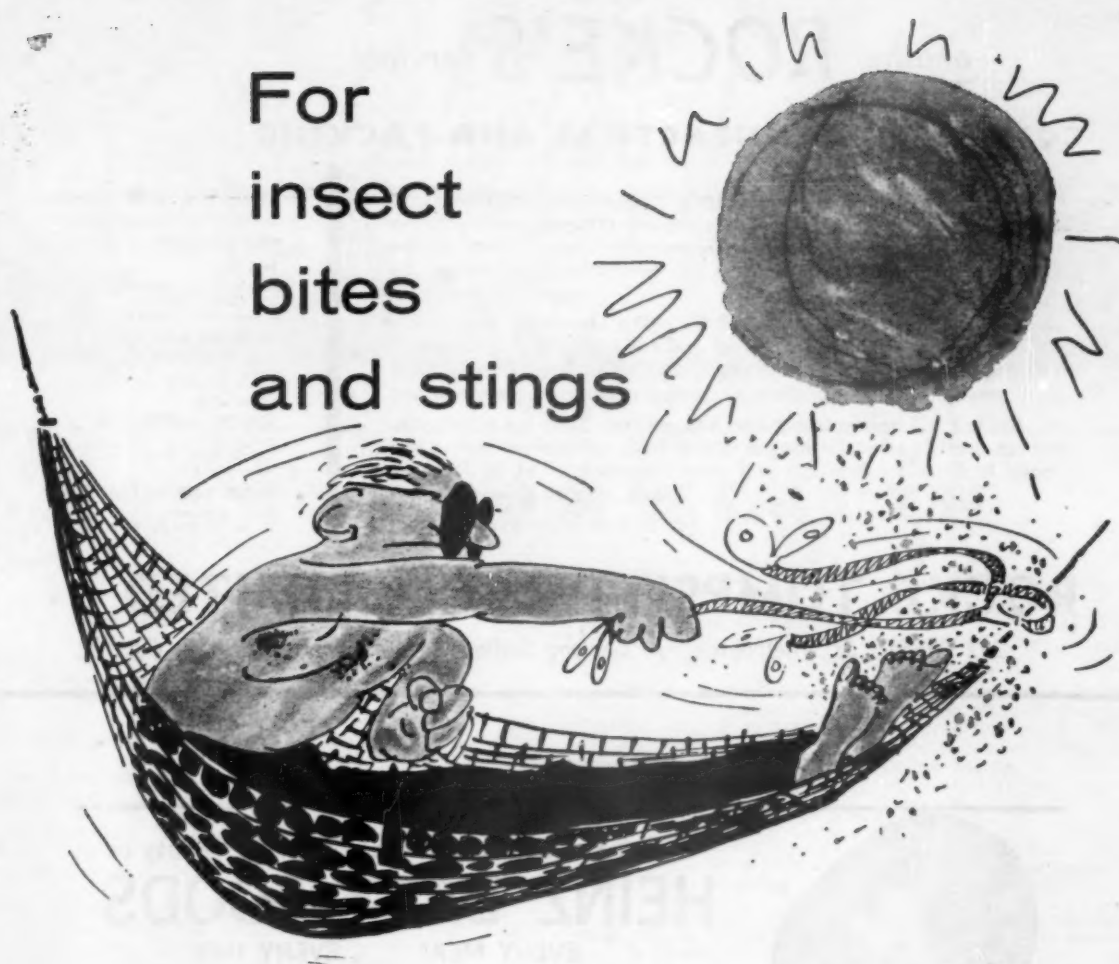
Talking of Congress, it looks like about 20 members of A.U.P.S.A. will be going to Sydney, travelling by train, for a hectic time in January.

Now that the exams have ended, many of the individual years have organised end of term dinners to celebrate the occasion and perhaps sample some Christmas spirit. Final year held such a function to which were invited Mr. Reynolds, head of the department, and Mr. Anderson, a senior lecturer to whom we said farewell. He has resigned to take up a position in the Pharmacy department of the University of Sydney, where he will lecture in Pharmaceutics. We regret his departure, but wish him every success in his new appointment. On behalf of A.U.P.S.A. he was presented with a silver percolator of the electric type in appreciation of his efforts while in the department.

Time is pretty rough at the moment while waiting for the results. However, as this is all for 1961, to all I say good luck, Merry Christmas and all the best for the new year.

—Mike Johnston, L.P.O., A.U.P.S.A.

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Roche's will handle own name and address items for pharmacies and can provide advice in the packaging field. Laboratory testing and bond facilities are available and, most important of all, all formulæ are treated as confidential.

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news and reports



COMMONWEALTH

PERSONAL and GENERAL

GUILD TO SPONSOR ASIAN STUDENTS

The Guild will provide scholarships to bring one Asian student a year to Australia to study pharmacy.

This important decision was made by the Guild Federal Council at its annual meeting in Melbourne from October 30 to November 2.

The Federal President, Mr. Eric Scott, said later that a request that the Guild should help to provide pharmacists for Asian countries was made to him by Hong Kong pharmacists during his recent visit there.

He estimated that it would cost the Guild between £600 and £1000 a year for each student. After a preliminary course at home, the students would do the full four-year course here. By the time the fourth student was selected, there would be four Guild Scholars in Australia. The first student, chosen next year, would come probably from Singapore or Hong Kong.

Of 30 Asian pharmacy students now in Australia, only one had come here under the Colombo Plan.

The Guild's announcement of the scholarships was hailed by the Melbourne Press as "Chemists' Own 'Colombo Plan,'" and one writer, Osmar White of "The Herald," commented: "This is a move that could well be followed by other far-sighted professional associations in Australia."

SHOP SYMBOL FOR GUILD MEMBERS

An outdoor symbol that will identify Guild chemists was decided on by the Guild Federal Council at its recent annual conference in Melbourne.

The selected design will be supplied in a form that

can be lighted at night, and will also be reproduced in transfer form for affixing to windows. This will replace the present arrow design.

Because of registration procedures, an exact definition and description of the proposed symbol was not framed, but it will include the traditional "B. The transfer will also carry the words "Guild Chemist," but outside the area of the symbol design.

N.H.S.

Several resolutions were carried regarding various aspects of N.H.S. dispensing and the procedures involved in handling the paper-work involved.

One resolution seeks to have the clause regarding collection of the 5/- for each prescription made applicable to all authorised chemists (i.e., including lodge dispensaries).

Staff Training

It was agreed to set up a staff training plan conducted by a professional organisation in this field, its introduction to be worked out by the Federal Merchandising Manager, Mr. Ross.

Because the increasing pressure of work now led to Federal Council meeting several times a year, it was decided that remits could be forwarded to the Federal Secretary at any time, and these would be considered at the next Council meeting. This would not only shorten the agenda at the annual Federal Conference but lead to speedier implementation of decisions made by Council.

Office-bearers

There was only one change in membership of Federal Council, Mr. Ray Feller replacing Mr. L. W. Smith as second delegate from New South Wales. Mr. Copeland retired by his own wish from the position of merchandising supervisor, and Council appointed Mr. R. R. Patrick (S.A.) as his successor.

Mr. Eric Scott was re-elected Federal President for the 15th successive year.

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Simanite (A/sia) Pty. Ltd.
Dal Vita Products Pty. Ltd.**

COMMONWEALTH—Continued

THE SOCIETY OF HOSPITAL PHARMACEUTICAL CHEMISTS OF AUSTRALIA

At the first Federal Conference held in Adelaide on October 7, 1961, the following pharmaceutical chemists were elected to the Federal Council:

Mr. F. J. Boyd (Vic.), President; Mr. P. L. Jeffs (S.A.), Vice-President; Mr. W. G. Mercer (Vic.), Treasurer; Mr. C. B. Macgibbon (Vic.), Miss M. G. Sweeney (N.S.W.), Mr. K. Rodger (S.A.), Mr. A. Footitt (W.A.), Mr. J. A. Anderson (Qld.), Mr. S. W. Hayes (Vic), Secretary

The main objects for which the Society is established, according to the Memorandum of Association, are:

1. To support and protect the character and interests of duly qualified pharmaceutical chemists practising the art and science of pharmacy in hospitals, institutions or similar establishments (including those of Her Majesty's Services) in the Commonwealth of Australia and in any Territories under the control of the Commonwealth Government.
2. To consider, originate and promote improvements in the law relating to the practice of pharmacy in hospitals, etc., and to consider alterations in the law and oppose or support the same, and to effect improvements in the administration and practice of pharmacy in hospitals.
3. To provide information where necessary concerning the professional nature, status, conduct and practice of pharmacy.
4. To advance and encourage the study of Pharmaceutical Chemistry, Physics, Microbiology, Physiology, Pharmacology, Radio-Isotopes, Standards and Administration for hospital pharmacy departments, and all other branches of science and medicine allied thereto by lectures and demonstrations.
5. The study of all matters relating to the practice of pharmacy in hospitals, etc. The arrangement of conferences and meetings for the reading of papers and for discussion, the promotion of closer relationship and co-operation between various hospital pharmaceutical chemists and the activities of other hospital departments.
6. To determine policy in connection with the practice of hospital pharmacy and to provide standards concerning the area, arrangement and use of equipment in hospital pharmacy departments.
7. To develop the establishment of a fund for a scholarship for hospital pharmacists.

It is desired to emphasise that this Society is NOT a trade union, within the meaning of the Trade Unions Act 1958.

Membership.—Any duly qualified pharmaceutical chemist registered to practise pharmacy in Australia or its Territories who,

1. Is holding an appointment to practise pharmacy in any of its aspects in any hospital or similar institution (including those of Her Majesty's Services);
2. Has held an appointment and has completed not less than 12 months service as such, is eligible to apply for members of the Association.

Annual Subscription.—Three guineas per year.

Administration.—The administration of the affairs of the Society shall be carried out by (a) Federal Council, (b) State Branch Committees.

State Branch Committees have been formed in the States of Victoria, South Australia and Western Australia.



TASMANIA

PERSONAL and GENERAL

State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in Tasmania, Miss Margaret Purdon care John Fiddy, FitzGerald's pharmacy, Hobart.

ATTENTION, TASMANIAN EMPLOYEES!

A branch of the Salaried Pharmaceutical Chemists' Association has now been formed in Tasmania. S.P.C.A. is an association of employee pharmacists, unqualified assistants and apprentices, with the backing of the President of the Federated Pharmaceutical Service Guild of Australia, and whose aim it is to foster the interests of its members. S.P.C.A. (Tas.) has three employee representatives on the Tasmanian Chemists' Wages Board, who are under direct instruction from the Association. Several meetings have already been held, and the annual general meeting is scheduled for February 15 next.

This is an association formed in your interests, and your membership is urgently needed. Inquiries may be made through the secretary, Mr. R. Tapping, 53 Mortimer Avenue, New Town, Tas. Business phone, 77138.

APPARATUS FOR PRACTICAL TRAINING

On September 27, 1961, the Pharmacy Board of Tasmania gazetted regulations that require every registered pharmaceutical chemist who enters into a contract of service with a student (who has completed his examinations and for the purpose of the practical training of that student) to have in his pharmacy a specified list of apparatus.

It should be emphasised that this apparatus is required only where a pharmacist has entered into a contract with a student.

The list as gazetted is as follows:—

Apparatus List for approved pharmacies. Regulation 25 (5) (b), Pharmacy Regulations:

Beakers, 100 ml.	1 only
250 ml.	1 only
Bunsen Burner, or alternative method of heating, such as an electric hotplate	1 only
Dishes, evaporating, porcelain, 3 in.	1 only
8-10 in.	1 only
Funnels, glass or plastic, 2 in.	1 only
5 in.	1 only
10 in.	1 only
Sintered glass, No. 3	1 only
Vulcanite, two-piece	1 only
Flasks, Erlenmeyer (conical), 250 ml.	1 only
Buchner, 250 ml.	1 only
Measures, Graduated dispensing glass—	
Imperial, 2 drachms graduated to minims	1 only
1 fl. oz.	1 only
2 fl. oz.	1 only
4 fl. oz.	1 only
10 fl. oz.	1 only
20 fl. oz.	1 only
Metric, 100 mls.	1 only
500 mls.	1 only
Enamel or stainless steel, 40 fl. oz. or half-gallon.	

Mortars and Pestles—

Glass, 3 in.	1 only
Wedgwood, No. 2, 5 in.	1 only
No. 5, 7 in.	1 only
No. 8, 10 in.	1 only

Stirring Rods—

Glass	{different	2 each
Vulcanite	{sizes	2 each

Scales—

Dispensing, beam types, to 2 oz. with weights	1 only
Counter to weight to 4 lb., with weights	1 only

Sieves—

No. 60	1 only
No. 44	1 only
No. 22	1 only

Slab, ointment, 10 in. x 10 in.

1 only

Spatulas—

Stainless steel, 7 in.	2 only
10 in.	1 only
12 in.	1 only
Vulcanite, 4 in.	1 only
6 in.	1 only

Test Tubes, $\frac{1}{2}$ x 6 in.

6 only

Thermometers, chemical, 0-110° C.

1 only

0-200° C. 1 only

Tripod and Gauze Water Pump (if a burner is being used for heating some type of small vacuum pump to work from a tap to provide negative pressure for filtering eye drops through the sintered glass funnel

1 only

Weights—

To go with dispensing beam, $\frac{1}{4}$ -6 gr. inclusive— $\frac{1}{4}$ scruple to 4 drachms	1 set
Metric, 2 mgm. to 100 gm.	1 set

ALSO—

Water Bath 1 only

Autoclave—Small autoclave or household pressure cooker.

Stirrer—Some form of mechanical stirrer, such as vitamiser.

Refrigerator—A small refrigerator is necessary now for safe storage not only of vaccine, but also of injectibles, such as Thiomerin.

THE GUILD

S.B.C. Meeting

A general meeting of the Tasmanian Branch of the Guild was held at 93 Davey Street, Hobart, on November 27 at 8 p.m.

Present.—Mr. C. A. Robertson (Chairman), Miss E. M. Hurst, Miss N. L. Gibson, Miss M. E. Andrews, Mrs. E. M. Hawkes, Messrs. A. G. Gould, G. M. Fleming, R. Benes, K. H. Jenkins, I. R. McIntosh, A. K. Smith, J. M. Beaumont, J. J. Kaufman, O. K. Colman and the Secretary.

Financial.—Accounts totalling £471/19/9 were passed for payment.

Commonwealth and Empire Games, 1962.—A letter was received from the Western Australian Branch seeking co-operation from this Branch in requesting members to contribute towards these Games. A letter suggested that if £1 was received from every chemist a cheque for about £5000 could be presented to the funds from pharmacy.

TASMANIA—Continued

The desirability of contributing in this way or for local funds for our own competitors was discussed.—The meeting agreed that members be requested to donate £1 to the Western Australian appeal.

Perth Conference.—Advice was received from the Pharmaceutical Association of Australia that this Conference would now be held from May 21 to May 26, 1962. Mr. Kent asked for advice as to how many delegates would be attending from this State.

Mr. Fleming advised that he would most likely be attending, and the Women Pharmacists would have two representatives attending the Women Pharmacists' Section of the Conference.

The President asked that any other members intending to be present at this Conference should advise the Secretary accordingly.

Chief Pharmacist.—The President advised that a farewell dinner would be tendered to Mr. and Mrs. Sher-rington on February 8, 1962.

Pharmacy (Medicines and Drugs) List, 1960.—Mr. Robertson stated that the Bill brought before Parliament to make the List of Medicines available to grocers permanent legislation was defeated in the Legislative Council and amended to be for a further trial period of two years.

Mr. Robertson reported that considerable work was done in connection with this Bill, and he felt that it was only because of this work that the amendment was achieved.

Federal Council Meeting.—Mr. Fleming reported on items considered at the Federal Council meeting, particularly referring to discussions covering N.H.S. items.

He mentioned that remits would be received at any time by Federal Office and would be considered at their next meeting, even if this was an emergency meeting.

A sign for identifying pharmacies throughout Australia was being considered, to be in the form of a gold cross on blue background with "P" in the centre.

Dissatisfaction on the ready-prepared eye drops introduced under N.H.S. was registered and taken up with the Government.

A temporary arrangement had been made with the Repatriation Department for their dispensing as from January 1, 1962, to be in operation until a final agreement is reached.

He mentioned that office-bearers were unchanged from last year, with the exception of Mr. Patrick from South Australia, who took over Merchandising in place of Mr. G. S. Copeland.

Members asked that a letter of congratulations be forwarded to Mr. Scott on his re-election to the Presidency, and members asked that their wishes for Mr. Scott's speedy recovery from his recent illness be forwarded to him.

The President thanked Mr. Fleming and Mr. Copeland for the very valuable time they had given to pharmacy and the comprehensive report which Mr. Fleming had made to the meeting.

Merchandising.—Mr. McIntosh reported that there had been a special meeting of the Merchandising Committee.

He referred to the P.F.S. prescription pricing calculator, which was available at a cost of £5/5/-.

Discussion then followed on types of advertising being used. Members thought that the names of contributing chemists could advantageously be included in some advertisements.

D.D. Act.—After discussing phone prescriptions under the D.D. Act, it was stressed that the responsibility was entirely with the doctor to provide the prescription.

List of Apparatus for Approved Pharmacies.—Mr. Beaumont criticised the list issued by the Pharmacy Board for apparatus which was considered necessary for a pharmacy to be approved for employing a student after completing his academic course.

Mr. A. K. Smith, Chairman of the Pharmacy Board,

explained that this list was drawn up in consideration of requirements for reciprocal arrangements with other States and countries, as well as from the practical approach.

There was considerable discussion on various aspects of the list, and Miss Gibson asked that measures be stamped by the Government Inspector before being sold by the warehouse.

The Chairman then closed the discussion.

Shops Act—Saturday Morning Closing Bill.—The meeting was advised that a Bill to introduce uniform Saturday closing throughout the State was at present before Parliament.

It was considered that country members would not be in favour of this legislation, as in most districts the doctors were writing prescriptions on Saturday mornings.

The President undertook to compare the amendments with the Act and to take whatever action was necessary after consulting members.

Christmas Opening.—The meeting asked that advice be forwarded to members on the agreed times of opening during Christmas.

The meeting closed at 10.30 p.m.

DRAFT STANDARD FOR BACTERIOLOGICAL AND AGGLUTINATION TEST TUBES

The Standards Association of Australia announces the issue for public critical review and comment of a proposal to adopt B.S. 625:1959, Bacteriological and Agglutination Test Tubes, as an Australian standard, without amendment.

This standard specifies test tubes used in fermentation, agglutination, and general bacteriological work. Fourteen sizes are provided by the specification and are available in a round-bottom form with either beaded or square tops. Two of these types are used for agglutination, one of which is in the "Dreyer" shape having a tapered bottom and flared top.

A test for free alkali is included as an appendix, and provision has been made for the tubes to be graded according to whether they pass this test or not. The special grade would thus be suitable in those cases where alkali leached from the glass might affect the work, whereas the ordinary grade would be suitable for general bacteriological work.

A recommended method for reconditioning tubes which have been stored is also included.

The proposal to endorse B.S. 625 is set out as Doc. 615, copies of which may be obtained from the headquarters of the Association, 157 Gloucester Street, Sydney, and from branch offices in the capital cities of all States and at Newcastle. Copies of B.S. 625 may be inspected or purchased at any office of the Association.

Comment on Doc. 615 will be welcomed from interested users or manufacturers of this type of apparatus. Such comment should reach the Association before January 31, 1962.

H.3 BANNED

A Federal District Court order, on request of the F.D.A., has now forbidden the marketing of H.3, the "rejuvenator" which originated in Roumania and was highly publicised in Europe and America.

H.3 is claimed to be an effective treatment for "pathological ageing, nervous disorders, lack of muscular strength, lapses of memory, lack of pigmented hair, arthritic joints, arteriosclerosis, ulcers, bronchial asthma, lumbago, mental trouble, and other diseases of old age."

Dr. Ana Aslan, of the Parhon Institute of Geriatrics in Bucharest, the inventor of the treatment, reported in Iron Curtain literature that 99.98 per cent. of some 8000 old persons were revitalised by H.3, a solution containing procaine hydrochloride and a preservative. The F.D.A. has now stopped the spreading of her disproved theory in the U.S.A.—"The Manufacturing Chemist," August, 1961.

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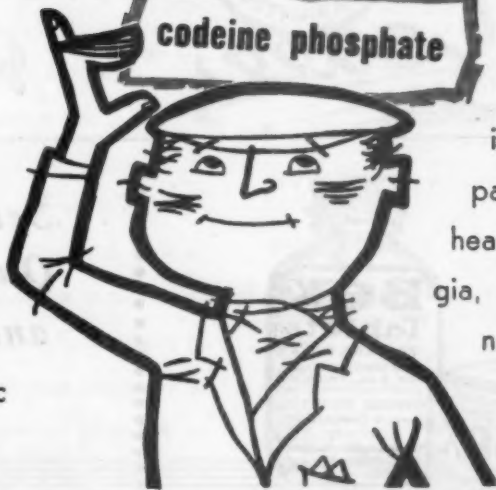
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Powders & Tablets



NEW SOUTH WALES

PERSONAL and GENERAL

State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in N.S.W., "Guild House," 199 Clarence Street, Sydney. (Phone: 29 5725.)

With faint praises one another damn.

—Wycherley.

Mr. T. V. Cooney has opened a pharmacy in Malton Road, North Epping.

Mr. A. A. Ryan has purchased the pharmacy at 562 Marrickville Road, Dulwich Hill.

Mr. H. D. Carroll, formerly of Blayney, has purchased the Panania Pharmacy at 92 Anderson Avenue, Panania.

Mr. W. P. Edwards has taken over Mr. G. J. Russell's pharmacy at Goulburn.

Mr. R. W. Humphreys is in business at 85 King Georges Road, Wiley Park.

Mr. N. V. Orr has sold his pharmacy at Strathfield to Mr. L. J. Harris, late of Moree and Panania.

Mr. B. M. Osborne has purchased the pharmacy of Mr. N. McIntyre, Bulahdelah.

Mrs. D. C. Harvey has sold her pharmacy at Hurlstone Park.

Mr. G. J. Druce has purchased Willis' pharmacy at Raymond Terrace.

Mr. G. E. Miles has opened a pharmacy at 120 Grays Point Road, Grays Point.

Mr. F. Swavley has purchased Harvey's pharmacy at Hurlstone Park.

Mr. George Papadimitriou is opening a pharmacy at 20 King Street, Newtown.

Mr. B. M. Azoulay has purchased the pharmacy of Mr. S. J. Williams, 89 Auburn Road, Birrong.

Mr. E. S. Arbuckle has purchased the pharmacy of Mr. A. G. Barber at 118 Railway Parade, Kogarah.

Mr. N. T. Carrick is opening a pharmacy at 301 Bolivia Street, Cabramatta West.

Mrs. E. H. Conroy is the new owner of the pharmacy situated at 2 Florence Street, Hornsby.

Mr. R. F. Daly is the new owner of the pharmacy at 1246 Rocky Point Road, Sans Souci.

Mr. P. F. Healey has opened a pharmacy at Wentworthville.

Mr. H. N. Henderson has opened a pharmacy at 320 Kingsway, Caringbah.

Mr. Leonard J. Luber has been appointed as Honorary Consultant in Plastics and Rubber at the Prince of Wales Hospital, Orthopaedic Department, Randwick.

Mr. E. F. Byrne has sold his pharmacy, known as "Roselands Pharmacy," Narwee, to Mr. G. A. Smith, formerly of Graham Road, Beverly Hills.

Mr. W. R. Cutler has disposed of his pharmacy at 260 Kingsgrove Road, Kingsgrove, to Mr. R. J. Deans, late of Wagga Wagga.

MATERIA MEDICA, 1962

Students intending to enrol in Materia Medica in 1962 are required to register at the Pharmacy Department, University of Sydney, during the week commencing February 19, 1962.

S. E. WRIGHT, Professor.

ADVERTISING PRACTICES

In the Legislative Assembly on October 26 Mr. Rigby asked the Minister representing the Minister for Labour and Industry if he would consult with his colleagues in Cabinet with a view to introducing appropriate legislation to protect the public from false commercial propaganda by making it a punishable offence for any firm to use advertising material that is not strictly in accordance with fact.

The Minister, Mr. Landa, replied that at present there was a fair amount of legislation dealing with false advertising, but he was unwilling to say whether it could deal effectively with the subject in the manner suggested by Mr. Rigby.

The Government would soon be introducing the Factories, Shops and Industries Bill, in which, if it was thought fit, the matter could be tightened up. Mr. Landa said there was no doubt in his mind, from his dealings with the public, that many people believe that certain drugs will cure colds. He had never been able to find one that would cure colds for him. Many drugs do not have the curative powers that they were advertised to possess.

SHORTAGE OF PHARMACEUTICAL PERSONNEL IN AUSTRALIA

Interesting Discussion in the Legislative Council of the New South Wales Parliament

On the motion for the adjournment of the House, the Hon. C. J. Cahill, himself a registered pharmaceutical chemist in New South Wales, asked if the Minister in charge of the House would investigate the shortage of qualified pharmacy staff which had been evident for some time.

Mr. Cahill then gave to the House information regarding the situation in Queensland, New South Wales and Victoria as gathered by him from various sources.

As the subject is of current interest in view of the apparent inability of States at present to maintain an adequate flow of graduates to meet the demands of the profession, we publish below the discussion as reported in Hansard.

"The Hon. C. J. Cahill: In checking on this problem I have asked the people to whom one would normally apply for staff to give me some indication of what staff is available. When one wishes to engage a qualified pharmacist, the normal source of supply is the various wholesale pharmacy houses. For some time now, however, it has been virtually impossible to obtain such persons. Recently I was approached by a lady who had had some considerable pharmacy experience before she married a qualified pharmacist who set up business in a country town. Recently, through a tragic accident, this lady lost her husband and she found it virtually impossible to obtain a qualified person to carry on the pharmacy business, which today is closed.

I advertised in "The Sydney Morning Herald" on two successive days recently, Friday and Saturday, the

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NEW SOUTH WALES—Continued

most popular advertising days, in a prominent position in the Positions Vacant columns. The advertisement, under the heading of "Chemist," read, "Position available for young qualified pharmacist, £40 per week." Hon. members will appreciate that even in these days of high wages £40 a week is quite an appreciable sum to offer for staff.

The Hon. J. A. Weir: Why specify a young person?

The Hon. C. J. Cahill: As one who has employed staff for a number of years, I find that experience is of very little value. Experience often means shirked work, so, when I ask for staff, I ask for the youngest qualified person that I can get. I find that a staff I train myself gives better service. This advertisement was inserted on behalf of someone else, and not for me. I received two replies. One came from a young lady from Gordon, who asked where the position was. The other applicant, who was engaged, was not able to fill the position. I wish now to quote from replies to letters I directed to the various instrumentalities that one would normally approach for staff. The first reply is from F. H. Faulding & Co. Ltd., and it reads in part:

... The number of positions available for pharmacists, particularly in the country, is an indication of the great shortage of registered assistants. We cannot see any improvement in the immediate future; however we will advise any pharmacists seeking employment to contact you.

The next is from the Wholesale Drug Co. Ltd., and is dated 25th October, over the signature of Mr. C. Stanton, the Assistant Sales Manager. It reads, in part:

The position at the moment with regard to permanents—very few available.

We have encountered the same difficulty as yourself, and have found that there is practically no response to newspaper advertisements. As far as our records are concerned at the present time it would appear that from now until March the main bulk of registereds will be occupied in short-term relieving positions, but would imagine that during the months of June, July and August, 1962, there would build up a surplus.

The next one is from D.H.A. (N.S.W.) Pty. Ltd., which is possibly the main source of supply of young pharmacists. This letter is signed by Mr. H. J. McDroy, the Pharmacy Liaison Officer. This letter is dated 30th October, 1961, and reads in part:

During the period January to March, 1962, there will be an extreme shortage of registered labour, as the holiday demands will absorb all types of experienced staff.

Some time in March another group of pharmacists will be qualified, but, in my opinion, I do not expect this group to effect any noticeable change to the present situation. From observation made I am assuming that this group of registered labour will not exceed 100 personnel.

As you may be aware, there are a number of students attending the old pharmacy course who are finding it most difficult to qualify, due to many reasons... Under the new regulations a student is stood down if he should fail twice at the Mat. Med. Examination. This arrangement may eliminate a number of these students, and this aggravate the shortage of registered labour.

The Hon. R. R. Downing: That refers to the Board's examination?

The Hon. C. J. Cahill: Yes. The letter continues.

... According to the Pharmacy Department, there will be sufficient students to satisfy the demand for

pharmacy in New South Wales when the new course is fully established and some of the domestic problems ironed out. In my opinion, I think that it will be necessary for at least 300 students to start the course, and that at least 200 qualify at the end of each training period, which is four years (three years university training and one year as an unregistered). From present statistics it is necessary for New South Wales to receive at least 200 qualified personnel per annum, with a minimum of wastage . . .

To sum up these remarks, I am fully conscious of the fact that there will be a declining number of registered pharmacists available for permanent assistant positions and relieving work for the next two or three years.

To check on the position interstate I have a reply from D. Maclean Pty. Ltd., who are well-known wholesalers in Brisbane. This letter, dated 25th October, 1961, under the signature of the warehouse manager, reads in part:

Your letter . . . describes a rather worse condition of employment, that is in Queensland, and we are disturbed that it is so hard to find someone.

The answer to your question about future prospects of obtaining staff is that there will be more available here from February, 1962, but until then it will be most difficult. That is a time when there is a final examination. The letter continues:

There are over 100 students sitting for the final examination next month, and because of this number the results are not expected to be known until the end of January. These are the young people from the Central Technical College—the University course is only in its second year.

From past experience we estimate about 50 or 60 passes, and 15 at the most will be on the market for the positions. That is not quite the whole story, as it means that there will be quite a bit of movement of qualified staff, and it might be a good time to go looking for someone.

The President: Order! I remind the hon. member that he can raise on the adjournment only matters of urgent necessity and public importance and matters that can be remedied by administrative action. Does the hon. member suggest that this matter can be remedied by administrative action?

The Hon. C. J. Cahill: Yes, I think the Minister can possibly arrive at some solution to the matter. The next letter, dated 27th October, 1961, is from D.H.A. (Victoria) Pty. Limited. It reads in part:

. . . at the moment it is virtually impossible to obtain a permanent qualified. It is also very difficult to get relievers, as the demand seems to continue to be greater than the supply.

There is a possibility that a few relievers may come available towards the end of the year, until Christmas, but the salary they receive is rather high, and you may consider it too much. A reliever gets £42/5/- plus free board and travelling expenses.

The point I am trying to make is that this has been a problem for some years and something to which the Government could give consideration. The figures over the past few years indicate that about 300 young students have been entering the profession of pharmacy, and I am grateful to the officers of the various departments who have given me the figures. Going back to 1956, the number of students who were entering the profession of pharmacy were: In 1956, 303; in 1957, 271; in 1958, 298; in 1959, 313. In round figures, 300 young students a year entered the profession of pharmacy. Assuming that they would qualify in four years, the students that entered in 1956 would be qualified in 1960, and so on. I point out the grave shortage that

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NEW SOUTH WALES—Continued

exists today. The serious situation is that in 1960 a Bill was brought down by this Government altering the method of training, and I think it is going to bring about a chaotic situation. In 1960 the method of apprenticeship was altered and the qualification demanded of young pharmacists was matriculation. Then they had to go to the university and do a three years course, and then do a year's practical training. In other words, they were reversing the method of training. Three hundred and nine students commenced in 1960, and today, in 1961, there are 450 in this university scheme of training, and this indicates that there are only 139 new students at the university. There are 450-odd in the first and second year.

The Hon. R. R. Downing: Is the hon. member sure of that?

The Hon. C. J. Cahill: I was told by the University that there were 450-odd in the first and second years. There were 309 in the first year and 194 failed. That is what I was told by the University.

This would indicate that 115 students passed the examination and that 139 new students commenced the course and about 194 are repeating. If 139 commenced the course this year, and there was a chaotic shortage of pharmacists when an average of 300 commenced the course each year, what are we to expect in the future? When the Government introduces its new Bill dealing with pharmacists I hope that another mistake is not made. It was a mistake, resulting in chaos, to alter the method of training, which apparently has resulted in frightening people from the profession. I sound a warning that the new Bill should make a more sensible approach to the problem than the previous one. Things are so chaotic in the profession that if a pharmacist at, say, Balranald or Ballina, had a heart attack there would be no one to take charge of his pharmacy. I should be obliged if the Minister would have the matter investigated.

The Hon. R. R. Downing (Attorney-General and Vice-President of the Executive Council) (10.41), in reply: I am not sure whether the figures mentioned by the Hon. C. J. Cahill are correct. Some time ago the Government decided that the standards of the profession of pharmacy had to be raised, and a Bill was passed, with the support of the hon. member, providing that pharmacy should be a full university course. This was done with the co-operation of the University of Sydney, to which the Government made a special grant for buildings and the training of pharmacists. The Hon. C. J. Cahill will agree that the present method of training pharmacists by the University of Sydney will provide a higher standard in the profession than that which obtained previously. I am not sure whether the figures he mentioned are correct. If they are, they are rather startling; but one must appreciate that the difficulties that he mentioned in regard to pharmacy apply to most of the other professions also, including engineering, medicine and the law. This is natural in a country such as ours, with a growing economy and rapid development, where there is an increasing need for each of the professions.

I agree that the salaries for the first year of practical pharmacy ought to be as attractive as they are in any of the other professions, and if this is maintained it will attract young people to the profession. I am not aware that only 139 students entered the first year of pharmacy in 1961. My impression, gained from figures supplied by the university that I saw recently, but have not available now, is that, counting the failures in 1960 who were repeating the year, there were approximately 400 in first year at the university this year.

Motion agreed to.

PHARMACEUTICAL SOCIETY

Council Meeting

The Council of the Pharmaceutical Society of New South Wales met at "Science House," 157 Gloucester Street, Sydney, on December 5, at 7.45 p.m.

Present.—Councillors J. F. Plunkett (Chairman), E. G. Hall, S. M. Palfreyman, A. F. Winterton, B. G. Fegent, K. A. Cartwright, W. R. Cutler, H. W. Read, S. E. Wright, K. H. Powell, R. M. Dash and Mavis Sweeney.

Pharmacy Research Trust.—The Chairman read a list of donors to the Trust and also handed in a cheque for £100 he had received from Beckers Pty. Ltd. This company had not been approached with regard to donation. After discussion in regard to publication of names of donors, the matter was left in the hands of Councillor Wright to report to the next meeting.

Pharmacy Ball, 1962.—The Secretary was instructed to make a firm booking for the Trocadero for August 6, 1962.

A.N.Z.A.A.S. Congress—Sydney, 1962.—Mr. Palfreyman: "We could combine Country Week with A.N.Z.A.A.S."

Councillor Wright: "The University will put on a lecture and an inspection."

Mr. Plunkett: "We must give some thought to the people we will invite to our function."

Binder-cover for Digest.—After discussion, Mr. Fegent moved that the matter be not proceeded with. Seconded by Mr. Winterton. Carried.

N.H.V.P.A. Prize.—Discussion took place as to the allocation of this prize, having regard to the completion of the Apprenticeship Courses.

Councillor Wright said: "There are no prizes yet in the New Course. We could give it some thought for second and third year. One cannot give a medal from an outside body to a University graduate."

Mr. Plunkett: "Could there be a prize in any of the compulsory subjects, e.g. chemistry, physics or zoology?"

A Councillor: "We could cut out all prizes and inform the donors."

Councillor Wright: "The University may not accept any prizes from us. Let us consider it early next year."

Mr. Powell moved that the matter be given consideration by the Education Committee, with a report back to Council at the February 1962 meeting. Carried.

Industrial and Institutional Pharmacy Group.—Discussion on the tabled report took place around the notice of motion given at the Group's meeting.

"That this group remove from its Articles of Association all requirements for affiliation with the Pharmaceutical Society of New South Wales."

Councillor Sweeney said that in February there will be a meeting of Hospital Pharmacists only to discuss affiliation with the Federal Association of Hospital Pharmacists. In answer to a question, Councillor Sweeney said there would be about twice as many hospital pharmacists as pharmacists in industry in New South Wales.

Office Equipment and Furniture.—Mr. Hall reported on the transfer of money from the No. 1 to the No. 2 Account, and in reply to a statement by Mr. Winterton, that there is an amount of money shown on the Balance Sheet for refurbishing. Mr. Hall said that there will be a conference with the Society's auditors when the whole matter of the various accounts will be cleaned up.

Annual Meeting.—The matter of fixing a date for the Annual Meeting was left in the hands of Mr. Plunkett, who would fix a date after making arrangements with a certain prominent person as a possible guest speaker.

Correspondence.—From "Australasian Journal of Pharmacy" re visit to a meeting of the Committee of Management of the Journal. As Mr. Plunkett was unable to attend the meeting, Mr. Cutler would attend

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NEW SOUTH WALES—Continued

in his place. It was hoped that the Journal Committee would extend an invitation to Mr. Plunkett to be present at a subsequent meeting.

From P.A.A., re number of delegates attending conference. The Secretary was instructed to inform the Secretary of P.A.A. that four councillors and the Secretary will attend the conference.

From P.A.A., re Universities Commission. The Secretary was instructed to write leaving this matter in the hands of P.A.A. and mentioning that Councillor Wright is making a submission.

From N.A.P.S.A. The Treasurer reported that the Guild had also been approached in this matter, and suggested that the Society should act in concert with the Guild. He moved that an amount of £25 be allotted.

From Mr. Fegent, forwarding letter of resignation. Mr. Plunkett expressed his personal regrets at the decision taken by Mr. Fegent, and in speaking for the whole Council placed on record councillors' thanks for the many years of faithful service given by Mr. Fegent to the Society. He also offered best wishes for Mr. Fegent's future health and good fortune.

N.H.V.P.A. Annual Meeting—Newcastle, 12/11/61.—Mr. Plunkett and the Secretary attended. [This meeting was the subject of a report published on pages 1231 and 1232 of the November issue.—Ed.]

The report was received.

New Members Elected.—Peter Roy Bloomfield, Concord; Robert Edward Hayes, Maroubra; Barry James Hynard, Kingsford; and Alison Hastings Kelso, South Hurstville.

Associate Members.—John William Maudson and Pamela Rachael Sivyver.

The meeting closed at 11 p.m.

THE GUILD

S.B.C. Meeting

The State Branch Committee of the New South Wales Branch of the Guild met at "Guild House," 199 Clarence Street, Sydney, on November 29, at 8 p.m.

Present.—Messrs. L. W. Smith (Chairman), W. F. Pinerua, J. N. Young, P. R. Lipman, C. D. Bradford, R. W. Feller, K. E. Thomas, R. S. Leece and R. L. Frew.

Correspondence.—Mr. P. E. Hodgson, 757 Pacific Highway, Gordon, regarding proposed new Pharmacy Act. Pointing out that upon his death his wife would have to sell the shop and deprive herself of a means of livelihood and of bringing up the family. It could happen that his boys may have started their academic courses, but not completed them. Under these conditions it would not be fair and reasonable, in the circumstances. Considers that latitude should be extended to existing owners in arranging their own affairs.—It was decided to advise Mr. Hodgson that the Guild in its representations to the Department of Health and the Minister had presented appropriate provisions for the protection of widows, similar to those operating under the Pharmacy Acts in the Commonwealth. It is not the intention of the Guild to make further representations to the Minister. It is not possible to presuppose hypothetical situations.

From the F.P.S. Guild (Victorian Branch), suggesting that copies of minutes of State Branches should be exchanged. It was decided to advise that this State Branch Committee cannot see its way clear to accede to the request.

Mr. R. J. Turner, Director of Hospitals Contribution Fund of N.S.W., thanking the Guild for the good wishes and looking forward to continuing the harmonious relationship existing between the Guild and previous Director, Mr. R. A. Miller.—It was reported by Mr. Lipman

that the Fund had commenced to issue a combined receipt book for both the H.C. Fund and the M.B. Fund.

Mr. Earl Williams, Riverstone, regarding new issue of "Notes for Approved Chemists"—Eye Drops must now be ready-prepared. Mr. Thomas said the point raised by Mr. Williams had been taken up at the Federal level. A letter had been sent to the Federal Minister for Health, Dr. Cameron, on November 6. Mr. Thomas read this letter to the meeting. A protest had gone on.

Mr. N. A. Bridgefoot, R.S.S. & A.I.L.A., N.S.W., Chemists' Sub-branch, attaching correspondence relating to Repatriation Dispensing and attaching copy of letter received from the R.S.S. & A.I.L.A. State Headquarters.—Received.

Mr. Frank Bignell, Charlestown, asking for the legal answers to a number of questions under the present Pharmacy Laws, concerning partnerships, etc. Mr. Smith said that Mr. Bignell had been given full information at the annual meeting of the Zone at Newcastle.

Mr. Warwick Landers, Congress Director, S.U.P.A., re forthcoming N.A.P.S.A. Congress, Sydney, January, 1962. On January 10 holding dinner-dance at the Copenhagen Hotel, Kings Cross. Would like to make this a Guild welcoming dinner. Seeking financial help with the dinner. Cost, 37/6 per head; 150 visitors expected. Soliciting subsidy of 5/- per head.—It was decided to pay a subsidy of £50 to the S.U.P.A. in support of the welcoming dinner at the forthcoming N.A.P.S.A. Congress, Sydney, January, 1962.

From a member, drawing attention to tendency of doctors to prescribe everything as N.H.S. items, leaving it to the chemist to weed them out. Also drawing attention to doctors who prescribe D.D. items with other items and repeat the other items.—It was considered the protest was quite justified. There was the additional onus thrust upon the chemist to check everything; if he missed he would suffer financially. It was decided to send on the observations to Federal Office, with the suggestion that the doctor should be required to clearly separate and sign N.H.S. prescriptions separately from any other prescriptions written on the same piece of paper.

Major E. W. Pretty, Hon. Secretary, R.S.S. & A.I.L.A., N.S.W., Chemists' Sub-branch, inviting the President or representative to their annual Christmas function on December 7.—Mr. Pinerua said he would attend.

P.A.A., Melbourne, reminder regarding next meeting to be held in Perth from May 21 to May 26, 1962. Asking for probable number of delegates, also remits to be in by December 31. It was resolved that the President, Mr. L. W. Smith, should represent the Guild at the Conference.

Sutherland Shire Master Pharmacists' Association, forwarding five motions for attention:

1. That the suggestion contained in a previous edition of "Contact" for a uniform awning sign for pharmacy be pursued.

2. That recent suggestions concerning a less cumbersome name for the Guild be further considered.

3. That the Association, as well as its members, views with disquietude the growing practice of some practitioners quoting prices of P.P.'s to patients, even to the extent of telling them not to pay more than the price quoted. This has arisen even with P3 drugs, such as Anovlar, Conovid, etc. Is it within the province of the Guild to contact the Ethical Manufacturers' Association, or even the firms most concerned, to ensure the adoption of a fixed policy of detailers quoting correct Prescription Proprietary prices to medicos?

4. That many members are unaware of the extent of price cutting of common lines stocked in pharmacies. To overcome this it is felt that an employee of the Guild should weekly examine the four metropolitan dailies for "cut-price specials," and that a list of these be published in each Guild Bulletin for the information of members.

5. That a lead is what is required by all Guild mem-

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NEW SOUTH WALES—Continued

bers from the S.B.C. on the important merchandising problems confronting all of us. The meeting expressed its grave concern at the attitude of "laissez-faire" which had apparently been adopted by the S.B.C. with regard to the offending firms.

It was decided to send to the Association the letter drafted by Mr. Frew, which had been circulated to members of the Guild that day.

Concerning paragraph 4, the Committee considered that it would not be practicable to quote the product which had been cut in the preceding week, as this might react against firms who have a firm policy against price cutting, but in respect of which a product may have been cut in the preceding week. In any case, the cutting is not as bad as, say, six months ago.

N.H.V.P.A., advising that at a special meeting the following motion was passed:—

"This Association is alarmed at the inroads being made into our professional dispensing ability by the inclusion of so many ready-prepared items in the N.H.S. list of benefits, e.g., Eye Drops, Mist. Succinylsulphathiazole and Kaolin, which were previously extemporaneously prepared items."

Also forwarding copy of ad. for Harrison's Pills, part of which reads, "From all Chemists or from Amalgamated Laboratories, 57 Buckland St., Chippendale, Sydney."

Mr. J. E. McCutcheon, protesting against proposed new Pharmacy Act, which could vitally affect his interests and those of his family.—It was decided to reply in similar vein to the reply to Mr. P. E. Hodgson.

Mr. H. D. Joseph, The Avenue Pharmacy, Gordon, protesting against the proposed new Pharmacy Act. Will do his utmost to prevent it becoming law.—It was decided to reply in similar terms to the reply to Mr. Hodgson.

Mr. Alan Barber—Resignation as a Guild Member: It was decided to write an appropriate letter to Mr. Alan Barber, who had retired from the Guild. Mr. Barber was a Past-President of the New South Wales State Branch.

The meeting terminated at 11 p.m.

Report of Meeting of Trade and Commerce Sub-committee, held at "Guild House" on November 28, at 8 p.m.

Present.—Messrs. R. L. Frew, K. W. Jordan, R. W. Feller, R. S. Leece, J. N. Young.

Election of Chairman.—Mr. R. L. Frew was unanimously re-elected as Chairman of the Sub-committee.

Mr. Jordan paid a tribute to Mr. Frew's chairmanship during the past year.

The report of the alternate Federal Delegate on T. and C. matters discussed at annual meeting of Federal Council intimated that Mr. Copeland resigned as Merchandising Supervisor, his place being filled by Mr. Ross Patrick.

Survey Organisations.—A special committee was appointed to report on survey organisations; Mr. Ross to implement the recommendations of such Committee.

Gold Cross with Blue Background and Black Rx in Centre.—An insignia of this design was referred to the Committee for design details.

Increase in Wholesale Prices—Toni Lines.—Mr. Leece reported on the relative mark-ups on various home perm. preparations:—

			%
Style	96/-	13/6 35
Style, Junior	69/3	9/9 35.16
Crest	96/6	13/6 35
Crest, Junior	71/1	9/9 31.67
Hudnut	92/5	13/- 35.41
Pin Quick	92/5	13/- 35.41



VICTORIA

PERSONAL and GENERAL

State News

Members in Victoria desiring publication of personal items of interest are invited to write or telephone details to the Editor (38 6254).

Mr. H. Grossbard is relieving **Mr. L. Levy**, St. Kilda Community Chemist, for 12 months.

Mr. A. G. Murie has joined his father, **Mr. A. B. Murie**, at 209 Barkly Street, St. Kilda, and **Mr. N. Hanger** is manager at Elwood.

Miss Joan England (who qualified in December, 1947), in a letter from Pusan, Korea, on 25/11/61, advised that she is now working with the Australian Presbyterian Mission in Korea, as an evangelistic missionary. Her address is 471 Chwa Chun Dong, Pusan, Korea. She sends best wishes to Victorian friends.

Mr. Denis O'Brien was married to **Miss Judy James**, of Adelaide, on December 27 at the Church of the Holy Name, St. Peters, S.A. **Mr. O'Brien** recently returned after 18 months overseas and is now managing the U.F.S. Dispensary in Williamstown Road, Yarraville West. They will live in the residence attached to the shop.—Congratulations.

Congratulations to **Mr. Brian Wallace**, who gained equal first place in Chemistry IIB, and equal second place in Physiology and Bio-chemistry in the recent Second Year Examination of the B.Sc. degree course which he is taking at the University of Melbourne. **Mr. Wallace** passed the Victorian Final Examination in December, 1955. During 1960 he was a full-time demonstrator in the Victorian College of Pharmacy.

Business Changes

The following pharmacies have changed hands:

Mr. B. N. Smith from **Mr. G. R. Allmand**, Belford Court Pharmacy, cr. Kilby and Belford Roads, North Kew.

Mr. R. Kustin from **Mr. A. J. Cozens**, 100 Barkly Street, St. Kilda.

A night prescription service has been opened at Shop 2, McClellan Arcade, 244 Lonsdale Street, Dandenong, with **Mr. R. H. Pruden** in charge.

AFTER HOUR PHARMACY AT DANDENONG

Pharmaceutical chemists of Dandenong, Doveton and Noble Park have created a partnership for the purpose of establishing and conducting a night prescription service for the Dandenong district. In all there are 11 partners. The date fixed for opening of the service was December 18, 1961.

Mr. R. H. Pruden, Ph.C., M.P.S., will manage the pharmacy.

ILLNESS OF MR. ERIC SCOTT

We are pleased to report that **Mr. Eric Scott**, a member and the immediate past President of the Council of the Pharmaceutical Society, is recovering after undergoing an operation at the Freemasons' Hospital.

No man in official Pharmacy, at any period of its history, has carried a load of responsibility as has **Eric Scott**; no one has fought more strenuously or more consistently for Pharmacy; and no one was better fitted,

physically or mentally, for the unremitting struggle over the years of negotiating with Governments to uphold the rights of chemists.

All this must-have taxed severely **Eric Scott's** great strength, but never did he waver or let up when there was a job of work to be done.

Throughout Australia, members and people in all walks of life who have been associated with **Mr. Scott** in any capacity—his political friends and opponents; Government officials; members and leaders of the pharmaceutical industry—will join in wishing him speedy and complete recovery.

COUNCIL ELECTIONS

Mr. C. P. A. Taylor, who joined the Council of the Pharmaceutical Society in March, 1932, and is affectionately known as the father of the Council, has announced that he will not be a candidate for re-election when his term of office expires by effluxion of time in March, 1962.

At the December meeting members of the Council paid tribute to the outstanding work of **Mr. Taylor** during the 30 years he has been a member of the Council. His direct, energetic, practical and thoughtful approach to problems has been of the greatest assistance, and his qualities of leadership, which had been so well demonstrated during his years as President, made him a valuable colleague. At the Council meeting the President and the members spoke appreciatively of **Mr. Taylor's** work, and best wishes for the future were extended to him.

Nominations for election of members of the Council will close on February 15, and the date of election has been fixed for March 5.

Three other members retire in March. They are: **Mrs. P. A. Crawford**, **Mr. F. W. Johnson** and **Mr. J. R. Oxley**. These three members will stand for re-election.

IS THIS A RECORD?

Mr. Peter John Moore, son of **Mr. E. A. O. Moore**, was one of the successful candidates at the final examination of the Pharmacy Board of Victoria in December.

He will now join his father and brothers **David** and **Bruce** in partnership, carrying on their two pharmacies at 419 Centre Road, Bentleigh, and 381 Hampton Street, Hampton.

It would be interesting to know whether the records in other States show a family record to surpass that of a father and three sons, all qualified, carrying on business together in partnership.

HOSPITAL BENEFITS ASSOCIATION

The Twenty-seventh Annual Report and Financial Statement of the Hospital Benefits Association of Victoria for the year ended June 30, 1961, indicates that the remarkable growth of the Association shown in recent years has been continued.

Comparative figures of income show an increase from £1,552,000 in 1956 to £4,531,000 in 1961, the 1961 total being a little more than a million in excess of that in 1960.

The total claims paid, including amounts paid as Commonwealth Benefits, were in excess of £6,000,000 for the year under review.

The published Balance Sheet shows assets of £3,286,485.

The Hospital Benefit Reserve Fund stands at £1,956,122 and the Medical Benefit Reserve Fund stands at £1,293,121.

VICTORIA—Continued

Dr. C. H. Dickson, Medical Secretary of the British Medical Association (Victorian Branch), is President of the Association, and Mr. J. R. Oxley, Vice-President of the Pharmaceutical Society, is a member of the Executive Committee.

MR. A. T. S. SISSONS TO RETIRE

Mr. A. T. S. Sissons, Dean of the College, has notified the Council of the Society of his intention to retire as from the end of the year 1962.

That year will mark the transition from the old system of pharmaceutical education to the new. It will be the end of an era. In 1962, the Third Year of the full-time course will operate, thus completing the changeover.

Mr. Sissons joined the teaching staff of the College in 1920. For over 40 years he has directed pharmaceutical education in Victoria. Under his guidance the course has moved from a nine months part-time course to its present standard. Almost every advance was initiated and carried through by Mr. Sissons.

Throughout 40 years of devoted service he loyally served the Society. He jealously guarded the interests and the welfare of his students. Actuated by lofty ideals, he did more than may ever be realised to uplift the standard and standing of Pharmacy in this State.

As he steps down he will miss the daily contact with his students and his colleagues, and they will sadly miss him. He will, however, be compensated by the knowledge that he will be remembered and loved by innumerable past students scattered throughout the Commonwealth who, as long as they live, will think of him as their champion, their friend, and dedicated teacher.

FORGED PRESCRIPTIONS FREQUENTLY PRESENTED AT PHARMACIES

It is not uncommon for members of the public to present for dispensing prescriptions which they have forged. The prescriptions are usually for Specified Drugs, notably the Amphetamines. Sometimes these forgeries are the work of a person trying his or her ability as a forger for the first occasion, but frequently an operator continues to present forgeries over a period of years.

One such case came under notice recently, and the Pharmacy Board has requested that the matter be brought to the attention of readers so that they can be on their guard against forgeries generally, and this case particularly.

The lady concerned in this case was convicted in the Brunswick Court in November, 1954, on three charges of obtaining Benzadrine by false representations. In October, 1960, she was convicted in the St. Kilda Court for forging prescriptions for Dexedrine tablets and in October of this year she was convicted in the Collingwood Court on two charges of forging prescriptions for Dexedrine tablets.

She is described by Police as aged about 55, height about 5 ft. 2 in., of stoutish build, with dark hair going grey, and wearing glasses. She is usually employed as a domestic. The prescriptions which she utters are usually on doctors' notepaper illicitly obtained from surgeries. They are well written, but sometimes Dexedrine is spelt Dexadrine.

Should a forgery be detected at your pharmacy, the correct procedure is to inform either the Pharmacy Board or the Police Drug Bureau. If possible, persuade the suspect to wait (perhaps on the pretext of dispensing the prescription) until a Board or Police Officer arrives.

If the suspect is unwilling to wait, try to persuade him or her to call back to pick up the dispensed item.

The policy of the Board is to handle all inquiries with tact and without undue publicity. Do not hesitate to contact the Board if, in your opinion, suspicious circumstances appear to exist in any particular case.

BOGUS PSYCHOLOGISTS

The activities of some organisations and individuals offering what they term psychological services to students have been exposed by "Farrago," the newspaper of the University of Melbourne Students' Representative Council.

"Farrago" states that Melbourne University students have been warned by university officials to seek expert advice about the credentials of persons offering psychological services before going to them.

The article indicates that many students may have been duped. The writer of the article quoted from a circular stated to have been issued to University departments by the Vice-Chancellor (Sir George Paton). The following is extracted from the article:

"A number of students who have been experiencing some difficulty in coping with the normal anxieties of undergraduate life have been seeking assistance from practitioners in the city.

In some cases they have been led to seek such help by advertisements offering free psychological assessment. The assessment normally leads to an invitation to undertake a course, for a fee, which purports to help them overcome weaknesses which handicap them in their studies.

In some cases we feel that the students have not been well served, and I think it is desirable that they should take advice from the University before spending their money."

The Student Counselling Service told "Farrago" that they had been alarmed by several cases of male first and second year students. They stated that they had seen a couple of cases, and were quite disturbed by the psychological damage caused by the stimulation of anxiety neuroses.

The writer of the article states that the University did not name any particular psychological services, but indicated that a considerable number had been visiting clinics run by an association of "Scientologists."

OBITUARY

Henry Albert Bosselman

It is with regret that we announce the death of Mr. Henry Albert Bosselman, which occurred on November 25.

Mr. Bosselman was apprenticed to Mr. R. S. Sargent, Bendigo, later transferring to Mr. S. M. Dalton, also of Bendigo. He was registered in 1918. For 29 years Mr. Bosselman was engaged in hospital pharmacy work at the Austin Hospital.

To his widow and other members of his family we extend sincere sympathy.

Dorothy Florence Ariell

We regret to report the death of Miss Dorothy Florence Ariell, which occurred on November 24.

Miss Ariell was apprenticed to Mr. G. W. Francis, of Melbourne, and later transferred to Mr. J. C. Pickford. She was registered in 1920.

To members of her family we extend our sincere sympathy.

AMENDMENT OF THE PHARMACY REGULATIONS

(Extract from "Government Gazette," November 22, 1961.)

In pursuance of the powers conferred by Part III of the Medical Act 1958, the Pharmacy Board of Victoria, with the approval of the Governor in Council, do hereby make the following Regulations (that is to say):—

1. These Regulations may be cited as the Pharmacy Regulations 1961 (No. 2), and shall be read and construed as one with the Pharmacy Regulations 1930 and all regulations amending the same, all of which Regulations and these Regulations may be cited together as the Pharmacy Regulations.



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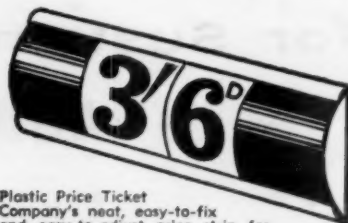


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VICTORIA—Continued

2. Before Regulation 37 of the Pharmacy Regulations, there shall be inserted the following Regulation:

"36A. The prescribed subjects of the preliminary examination shall be any four subjects of the matriculation examination at the University of Melbourne (including English Expression) constituting a pass in the said matriculation examination."

Pursuant to the provisions of Section ninety-four of the Medical Act 1958, the Governor in Council hereby approves of the Pharmacy Board of Victoria making the above Regulations.

Dated at Melbourne, in the State of Victoria, this seventeenth day of October, 1961.

N. G. WISHART,

Acting Clerk of the Executive Council.

The foregoing Regulations were made at a meeting of the Pharmacy Board of Victoria held at Parkville, in the State of Victoria, on the eighth day of November, 1961.

The seal of the Pharmacy Board of Victoria was hereto affixed by the Registrar in the presence of—

N. C. MANNING Members of the Board.

S. J. BAIRD

F. C. KENT, Registrar.

HEALTH (DANGEROUS SUBSTANCES) BILL

An amending Health (Dangerous Substances) Bill was introduced in the Legislative Council by the Honourable R. W. Mack, Minister of Health, on November 21.

The Minister said the main purpose of the Bill was to control the use of X-ray equipment and similar apparatus, and of dangerous substances, particularly those of a radio-active nature. The majority of the amendments related to regulatory powers.

Definitions were included of both dangerous substances and irradiating apparatus.

The reason for the introduction of the Bill was that grave fears had been expressed for the public safety by reason of the growing use of radioactive substances. This was discussed by the National Health and Medical Research Council, which drew up draft legislation for the guidance of all States.

This legislation was adopted by some of the States, but at that time it was felt that Victoria had the power, under Section 108 of the Health Act, to deal with radioactive substances. The regulations were approved by the Governor-in-Council and circulated. They laid down in considerable detail the precautions to be taken by users of radioactive substances and irradiating apparatus.

Until recently, all radio-isotopes used in Australia were imported, and therefore their availability and distribution were to a large extent supervised by the Commonwealth Department of Health. The Atomic Energy Commission was now undertaking the preparation of radioactive materials locally, and the Commonwealth had transferred to the Commission the authority previously held by the Department of Health.

This transfer was certain to bring about a greater increase in the use of radioactive materials.

In reply to a question by the Hon. Buckley Machin, Mr. Mack said it was not intended to follow the pattern laid down by the Commonwealth in this legislation. The intention was to ensure that the State had power to make legislation in its own right.

The Hon. P. T. Byrnes asked whether the Commonwealth law would override State law. Mr. Mack said he believed that where the two laws were in conflict the Commonwealth law usually overrode that of the State, but in health matters that of the State was paramount.

The Hon. P. V. Feltham said it depended on whether the State had been given power. In health matters he believed the State won out.

The debate was adjourned until November 28, on the motion of the Hon. Buckley Machin.

EXAMINATION RESULTS

The following lists of examination passes have been published by the Pharmacy Board:—

Pharmacy I Examination

Peter Alexander Allen, Maureen Carole Bailey, Michael Thomas Baker, Susan Maree Barker, Neil Edwin Bateman, Lorraine Beryl Brastrup, Ellen Catherine Campbell, Wayne Mervyn Carne, John Carruthers, David Chamberlen, Malcolm Robert Coghill, Peter William Crowe, Jeffrey Howard Daniels, Ross Bernard Dimsey, Geoffrey Nelson Dobbin, Kerry Rossiter Forrest, John Ellis Fregon, James Anthony Gallagher, Yvonne Natalie Gorr, Leonie D. Haines, John Charles Hayward, David Leslie Kennett, Carole Mariam Kierson, Barbara Kloss, Jennifer Margaret Langtry, John Campbell Lee, Roslyn Iris Lilley, Yvonne Berthe Loewy, Catherine Margaret Looney, Frank James Macknamara, Kelvin John M. Magree, Brenley Macmillan F. Milsom, Michael Leslie Minahan, John Tyler Mitchell, Mervyn Israel Morris, James W. McKeag, Donald William McLeod, Phillip John O'Dwyer, Warren O'Neale, Elizabeth Jane Page, Peter Pollard Palmer, Terence Ernest J. Phillips, Roland Allan V. Pither, Robert James Scarff, Eric Francis Scott, Dianne Martin Sime, David Hunter Smith, Geoffrey Wilson Steedman, Colin Warwick Stubs, Mattias Szyliit, David Julian Taylor, Ilga Tomanis, Margaret Varley Tonkin, Peter William Trembath, Paul Van Prooyen, Bruce Wallace, John Laurence Boniface.

Pharmacy II Examination

Wendy Anne Bray, Robin Noel Buchanan, Paul Gordon Burles, John Alfred Campbell, Peter William Carpenter, Rodney Phillip Cohen, Christopher Geoffrey Crawford, John Athol Daffey, Jill Roberta Davies, Ian Neville Davis, Rosemary Isabella Dean, Harold Geoffrey Dennis, Jennifer Rivers Dickinson, Martin Didzys, Lorna Dym, Dorothy Elaine Evans, Patricia Jeanne Fievez, Alan Gillibrand, Patricia Anne Gordon, Max Drysdale Graham, Jillian Ann Hancock, Stuart James Harrison, Yeo Lee Hong, Brenda Elizabeth Hope, Peter Hugh Hull, Diana Jennings, Ian C. Johnson, Robert Michael Keane, Neroli Jane King, Julie Lynne Kretschmer, Barry Joseph Lester, Peter John C. Lumley, Marion Elizabeth Milledge, Leigh F. Mitchell, Maria Magdalena Molnar, Helen McColl, Richard Paul McManus, Heather Elizabeth McPherson, David Newgreen, John Marshall O'Hara, Elizabeth Helen Rushbrooke, Karlene Ann Schelbele, Robert Morley Scholes, Nickless George Scotis, Anne Jeanette Taylor, Heather Anne Thompson, Andrew Weiss, Margot Ann Westbrook, Ian C. White, John A. White, John Thomas Woolard, Anthony Zappia, Mara Zubeckis.

PHARMACEUTICAL SOCIETY

Council Meeting

The Council of the Pharmaceutical Society of Victoria met at the College of Pharmacy, Parkville, on December 6, at 9.30 a.m.

Present.—Mr. F. W. Johnson (President) in the Chair, Mrs. P. A. Crawford, Messrs. S. J. Baird, A. L. Hull, A.I.K. Lloyd, L. Long, C. B. Macgibbon, J. R. Oxley, K. Ramsay, C. P. A. Taylor, G. K. Treleaven, F. C. Kent (Secretary), T. G. Allen (Minutes Secretary) and R. H. Borowski (Assistant Secretary).

An apology for non-attendance was received on behalf of Mr. Eric Scott, who was in hospital recovering from an operation. The President said the sympathy of the Council had been conveyed to Mr. Scott, who was hopeful of leaving hospital by December 8.

PHARMACY BOARD OF VICTORIA

ANNUAL ELECTION, 1962

Whereas TWO VACANCIES on the Board will be created in the month of February, 1962, caused by the retirement through effluxion of time of HENRY ALFRED BRAITHWAITE and WILLIAM WISHART, notice is hereby given that I will on the fifth day of February, 1962, proceed to hold an ELECTION of TWO fit and proper persons to serve as members on such Board. Candidates for election must be nominated on or before the fifteenth day of January, 1962, and if there be more persons nominated than there are vacancies, a POLL will be taken on the fifth day of February, 1962. Such nominations will be received at the office of the Pharmacy Board, 381 Royal Parade, Parkville, up to 4 o'clock in the afternoon of the fifteenth day of January, 1962.

J. I. RICHARDS,
Returning Officer.

Melbourne,
December 5th, 1961.

PHARMACY BOARD OF VICTORIA ELECTION OF A MEMBER OF THE PHARMACY BOARD OF VICTORIA

EXTRAORDINARY VACANCY

In pursuance of the provisions of the Medical Act 1928 (Part III), and the Regulations made thereunder, it is hereby notified that an ELECTION will be held to fill the extraordinary vacancy on the Board caused by the resignation of Nigel Charles Manning; and it is further notified that, in accordance with the requirements of the said Act and Regulations, Monday, the 15th day of January, 1962, has been appointed the day of nomination.

It is required that the nomination papers of all candidates be lodged or delivered by post at the Office of the Board, 381 Royal Parade, Parkville, before 4 o'clock in the afternoon on the said 15th day of January, 1962.

In the event of more than one candidate being nominated, a poll will be taken on the 5th day of February, 1962.

The person elected will hold office for the unexpired portion of Nigel Charles Manning's term, namely, until 7th February, 1964.

J. I. RICHARDS,
Returning Officer.

Melbourne,
December 5th, 1961.

VICTORIA—Continued

Correspondence.—The following correspondence was dealt with:—

From the Secretary, Traralgon and District Hospital, advising that the Cadetships being offered by the hospital had been withdrawn, as no suitable applications had been received.

From Parke, Davis & Co., Sydney, advising that the "Trip to Parke-Davis" would take place between January 21 and 25, 1962. The names of Victorian students nominated for the prizes were requested as early as possible.

From the Public Relations Secretariat, forwarding a copy of supplement from the "Straits Times" featuring a write-up of the Victorian College of Pharmacy.

To Mr. G. Landers, letter of sympathy on the death of his father.

From Mr. Duncan Reilly, thanking the Council for congratulations extended to him on his appointment as a J.P.

From a country member, requesting assistance in gathering statistics for a paper which he had been asked to present at a Rotary meeting. The request was referred to the Director, Museum of Applied Science, who was most co-operative in sending relevant information. A letter of thanks was received from the member concerned.

From the Salaried Pharmaceutical Chemists' Association, forwarding cheque in payment for 1961 prizes.

From a member, complaining of alleged libellous statements made by another pharmacist. After consideration of the complaint, the Council expressed the opinion that this was a matter for settlement between the persons concerned.

To Mr. A. T. S. Sissons, requesting comment concerning preparation of a statement for submission to the Commonwealth Committee on the future of tertiary education in Australia.

From the Victorian Branch of the Guild, forwarding for consideration by the Society a copy of an advertisement published by Amcal. The terms of the advertisement were discussed at some length, and it was resolved that the matter be discussed with the Amcal Board by the President and Mr. Ramsay.

From the Australian Dental Association, notifying names of office bearers of the Association for 1962.

From Nicholas Pty. Ltd., agreeing to increase the total of its annual prizes for College students to 100 guineas. Resolved that a letter of thanks be sent.

From Sigma Co. Ltd., agreeing to a suggestion that an additional prize in Pharmaceutics III be donated by the company annually, making a total of five prizes each year. Resolved that the offer be accepted and that Sigma Co. Ltd. be thanked.

From Mrs. Jean Manning, thanking the Council for farewell gifts.

From the Department of Health, submitting report on the recent chest X-ray of college students. The result was particularly good—all pictures were clear with the exception of one of a female student showing a non-tuberculous abnormality.

New Member Elected.—Mr. Ian L. Mills.

Erasures.—The Secretary tabled a list of 41 student members whose college courses had been terminated or who were otherwise ineligible to continue as student members. It was resolved that these names be removed from the membership list.

The names of 11 students whose names had been removed earlier in the year for non-payment of subscriptions, but who had since forwarded payment, were restored to the student membership list.

Merchandising Course.—Mr. Oxley reported that there had not been a meeting of the Education Committee during the month. He had, however, been in consultation with Mr. Bedford, the co-ordinator of the Merchandising Course to be introduced in 1962, and arrange-

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ments were well in hand to launch the new series of lectures next year.

The report was received, and it was agreed that the Executive be authorised to accept and publish the syllabus for the new course.

Hospital Dispensing Committee.—Mr. Long reported on a visit during the month, by the President, himself, Mr. Ramsay and the Secretary, to Traralgon. There they met chemists of Traralgon and Morwell who were providing a pharmaceutical service for the Traralgon Hospital. They were concerned at the possibility of a Pharmacy Department being established within the hospital and their services being eliminated.

Mr. Long said he pointed out that when a hospital reached a certain stage of development the establishment of a pharmacy within its own administration was inevitable.

On the day following the meeting with the local chemists, Mr. Long and his colleagues interviewed the Secretary of the Hospital and made certain suggestions to him.

He understood that local chemists had since then interviewed the Hospital Committee and had reached agreement on continuing the pharmaceutical service for the hospital for the time being. Report received.

Students Present Cheque.—Executive members of the Committee of the Victorian Pharmacy Students' Association attended the Council meeting at 11 a.m. to make a presentation.

The deputation consisted of Mr. J. Whiting, President; Mr. J. Pringle, Vice-President; Miss Joan Diprose, Social Secretary; and Mr. G. Himing, Hon. Secretary.

The President, on behalf of the Council, welcomed the Dean and the Students. He said it was always a pleasure to have such a visit. He knew, and the Council was aware, of the very considerable help the S.R.C. gave the Dean and teaching staff within the College. This led to smoother running, and the success of their efforts reflected great credit on them.

Mr. Whiting said the Committee had had a most enjoyable year. The purpose of this visit was to present a cheque, being the proceeds of the Pharmacy Ball. It was the Student Council's wish that this money be directed to the Victorian College of Pharmacy War Memorial Building Fund.

Behind the acquiring of the money there had been a lot of pleasure—the pleasure and fun of organising a function and seeing it succeed. Then there was the pleasure of receiving and entertaining Council and Board members, College staff and other visitors. On behalf of the students he wished to thank the Council for all they had done for them at the College. It was a beautiful college, and he knew every student appreciated that.

Mr. Whiting then handed to the President a cheque for £900.

The President, in accepting the cheque, expressed the sincere thanks of the Council. It would, he said, be applied to the Building Fund, and it was very satisfying that in the mind of the student body was the need for improved conditions in the building.

Mr. Johnson complimented Mr. Whiting on the manner in which he made the presentation. His remarks had been right to the point. Council members who were guests of the students had spent a very enjoyable evening at the Annual Ball. The arrangements were excellent and reflected great credit on the organisers.

Mr. Oxley, Vice-President, said he had much pleasure in supporting the remarks of the President. The Student Council members had shown they were "made of the right stuff." They had demonstrated that they were not at the College merely for instruction and to qualify; they had shown that they were imbued with the ideal of service. He trusted that this would persist and be directed towards the community as a whole throughout their lives. On behalf of the Council he wished them well in their future careers. These were young men and women of a type they needed in pharmacy.



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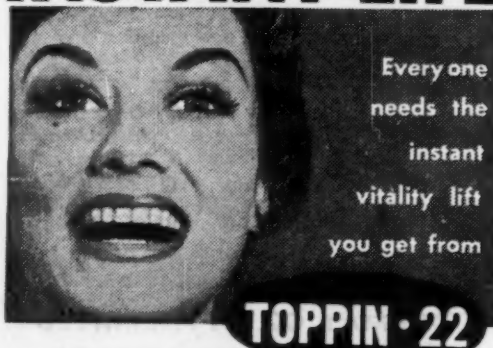
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VICTORIA—Continued

The Hon. Treasurer, Mr. Baird, added to the remarks of the President and Vice-President. Over the years it had been pleasurable for him to receive donations at the hands of the students, as in this year. The total contribution by the students was far from insignificant. They had made very large contributions, but what was most greatly appreciated was the thought and work and interest they had displayed. He believed the students were motivated by feelings of co-operation and self-help, and he had no doubt that this spirit would prevail amongst them as they went out later on to practise the profession for which they were now preparing.

After the presentation and speeches, the Dean and Students remained with the Council for morning tea, and retired at 11.45 a.m.

Retirement of the Dean.—The President announced that he had received a letter from the Dean intimating his wish to retire as from December 31, 1962. It was with a feeling of sadness that he presented this letter to the Council. Mr. Sissons joined the Council at the beginning of the year 1920 and with great devotion and ability had served the Society over 40 years.

In his letter to the Council, Mr. Sissons had pointed out that by the end of 1962 the new course within the College would have been fully implemented. This marked the end of an era, and he thought the time was appropriate for him to announce his retirement.

Members of the Council individually paid tribute to the great work of Mr. Sissons and expressed their regret that his time of retirement had come.

It was resolved, on the motion of the President, seconded Mr. Taylor, that the resignation of Mr. Sissons, as Dean, as from December 31, 1962, be accepted with regret, and that his offer to confer with the Council in regard to future arrangements be availed of gratefully.

It was also resolved that a letter in suitable terms, and signed by the President, be sent to the Dean.

Annual Examinations.—The results of Pharmacy I and Pharmacy II examinations were tabled.

The Secretary reminded Council that it had been resolved a year ago, in consultation with the Pharmacy Board, that after the conference of Examiners the results of examinations should be presented to the full Board and the Council of the Society prior to publication.

On this occasion the President was present at the conference of Examiners. He, together with Mr. Ramsay, attended a meeting of the Pharmacy Board when it received the reports of Pharmacy I and Pharmacy II examinations.

The President reported on both meetings, and said he had consented, on behalf of the Council, to the publication of the results.

The President's action in this regard was ratified.

Mr. Ramsay said there were certain matters discussed which rendered a conference between the Board and the Council necessary. He suggested that an endeavour be made to arrange such a conference as early as possible in the new year.

The Secretary drew attention to a report of a discussion which took place in the Legislative Assembly of the New South Wales Parliament, on the question of the shortage of chemists and the concern which was being felt in the profession at the high failure rates at examinations.

In this discussion the position in Victoria and other States was referred to.

The reports of the Examiners indicated that in the Pharmacy I examination 54 students had repeated first year, and of these 14 passed, 23 were granted supplementary examinations and 17 failed. Twenty-one students in this group had passed the Matriculation examination, and 33 had not.

Report on Enrolments.—The Secretary submitted a report on the number of enrolments for the first year course, 1962. He said 207 applicants had been notified

of provisional enrolment and had paid the enrolment fee. The majority of these, however, were presenting for the Matriculation examination at the end of the year, and confirmation of enrolment would depend on their passing.

The question of admission of students who had failed the Pharmacy I examination 1961 was discussed, and it was resolved that the action to be taken be left in the hands of the Executive.

Annual Elections.—The Secretary reported that the members of the Council who would retire in 1962 were Mrs. P. A. Crawford, Messrs. F. W. Johnson, J. R. Oxley and C. P. A. Taylor. The retiring Auditor was Mr. R. H. Morrison.

The date for the closing of nominations had been fixed for February 12, 1962, and the date of the election March 5, 1962.

Retirement of Mr. C. P. A. Taylor.—Mr. Taylor informed the Council that he would not be seeking re-election when his term of office expired in March. On looking up the records he found he joined the Council in 1932 and had enjoyed every minute of his association with fellow councillors. He had, however, become so involved in various activities and interests that he found it impossible to do justice to the position, and for that reason he would not stand for re-election.

The President said every member of the Council would regret the circumstances which impelled Mr. Taylor to withdraw from the Council. He had served the Council well over the last 30 years, and all appreciated the value of his contribution. Every member around the table would miss Mr. Taylor very much. He wished to congratulate Mr. Taylor on his record of service, and expressed the wish that Mr. Taylor would be spared for many years to continue his good work in other activities.

The Hon. Treasurer, Mr. Baird, supported the President's remarks. Mr. Taylor was President when he (Mr. Baird) first joined the Council. It was always a pleasure to serve with Mr. Taylor, and he knew the Council was losing a man of great capacity and one who would be difficult to replace.

Mr. Oxley, Vice-President, added his tribute. He said but for the lateness of the hour every member around the table would like to express their feelings toward Mr. Taylor. However, he hoped that in the near future the opportunity would be provided for doing this.

Financial.—The Hon. Treasurer presented the monthly financial statement, and accounts totalling £8878 were passed for payment.

Mr. Baird tabled also the audited financial statements of the Building Fund and the C. L. Butchers Memorial Library Fund.

Pharmaceutical Association.—A communication was received from the Pharmaceutical Association of Australia concerning the next meeting, which would be held in Perth from May 21 to 26, 1962. The Society was asked for an estimate of the number of delegates who would be attending and to submit items for inclusion in the Conference agenda.

It was resolved that a letter be forwarded indicating that five or six members of the Council would be likely to attend, and that the matter of remits was under consideration.

Labelling of Containers of Dispensed Medicines.—Mr. Long tabled a draft statement that had been prepared by a sub-committee comprising Mr. Hull, Mr. Lloyd and himself. He suggested that copies of this be sent to members of the Council prior to the next meeting and that consideration be given to the publication of an official statement on the subject by the Council.

Conclusion.—At the conclusion of the meeting at 1.42 p.m., Mr. Taylor, on behalf of the Council members, conveyed to the President best wishes and the season's greetings. The President thanked Mr. Taylor and the other members for their good wishes, and he heartily reciprocated.

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VICTORIA—Continued

THE GUILD

S.B.C. Meeting

The State Branch Committee of the Victorian Branch of the Guild met at Guild House, 18-22 St. Francis Street, Melbourne, on December 5, at 8 p.m.

Present.—Mr. N. F. Keith (President), Chairman, Messrs. F. H. Bedford, K. L. C. Davies, J. W. D. Crowley, A. K. Lloyd, J. K. Gosstray, R. B. Grinlington, G. Carter, H. Shilton, W. J. Langtry, J. F. Scown, M. Lee, S. Gandolfo, A. Hoogen, C. N. McLeod, H. C. B. Henshall, J. Widdicombe, W. L. Hilyard, J. I. Richards, K. D. Liddell, D. L. McColl, N. Oliver, Miss R. MacGillivray, W. J. Wright (Secretary) and Miss B. Wilson (Assistant Secretary).

Present by invitation: Mr. M. Batchelor.

The Chairman welcomed Mr. N. Oliver, of Bendigo, attending as observer in Mr. Marks' absence, and Mr. M. Batchelor, of Frankston (visiting).

Correspondence.—From Mr. A. L. Hull, pointing out an error in the formula of Glycerine and Rosewater on the "General Notes" page of the Price List. The Committee agreed that the formula should be 2 to 1, and it was decided to correct the error on the "General Notes" page.

A letter from the W.A. Branch, suggesting that chemists contribute to support the 1962 Empire Games in Perth was read. It was decided to refer to this in the next issue of the Guild News Bulletin.

A letter from the Federal Merchandising Service regarding a proposed extra pack of "Serene" napkins was read. It was decided that an extra pack was not required, the present packs being sufficient.

A letter from N.S.W. Branch, advising that the N.S.W. Committee does not wish to participate in an exchange of minutes, was read.

District reports were presented, as follows:—

District No. 8.—Repeats on Repatriation: Mr. Hilyard moved that Federal Executive be asked to approach the Repatriation Department with the request that repeat forms for Repatriation prescriptions be introduced. This motion was seconded by Miss MacGillivray and carried.

District No. 22.—Sundries Price List: To the remit that the Guild make available a complete Sundries Price List within a reasonable time, it was stated that this was being done as quickly as possible.

District No. 24.—N.H.A. Tally Sheet: A remit was presented that the Health Department be requested to provide tally sheets in triplicate with carbon, and return the duplicate to the chemist with any alterations made. Mr. Keith stated that this proposal was put up at the last Standing Committee meeting, but the Department was not prepared to do it. Mr. Lloyd said he was amazed at this and could not understand why this improvement was refused. The matter should be taken up again. Mr. Scown moved a motion that this be done. The motion was carried.

District No. 2b.—N.H.A. Withdrawal Forms: To the District's request for an explanation as to why action was not taken following the collection of withdrawal authorisations from dispensing National Health prescriptions, it was stated that an explanation would be made by letter.

Executive Report.—The report of the Executive meeting held earlier in the day was given by Mr. Keith and discussion ensued under the following headings:—

Bank Agencies: Mr. McColl moved and Mr. Widdicombe seconded a motion that no action be taken about agencies at this stage. Mr. Lloyd spoke in opposition to the motion. Mr. Langtry moved an amendment that action be deferred and the matter be publicised through appropriate channels, that the Guild would like comments from members affected. The amendment was

seconded by Mr. Hoogen and carried, thus becoming the motion, which was carried.

Mr. Richards moved that the Guild State Secretary write to the Chief Secretary of Victoria, asking that agents be written to and advised of the provisions of the proposed Bill for Saturday closing of banks, and ask for their views. Mr. McLeod was asked to get information on this matter.

Repatriation.—Mr. Keith raised the matter of the motion passed at the general meeting and which was referred to in correspondence from himself and the Secretary to S.B.C. members. Mr. Shilton gave notice of a motion which he proposed to put forward, that a further general meeting be called.

P.A.T.A. The Chairman reported the Executive recommendation that no further action be taken by the Guild in support of P.A.T.A. A number of members spoke against accepting this recommendation, these being Messrs. Henshall, Lloyd, Richards and Oliver.

Mr. Shilton moved that a decision be deferred for two months. This motion was not accepted.

Mr. Lloyd moved that this section of the Executive report be deleted. This was not accepted.

Mr. Langtry moved that the Executive have a further look at its recommendation and give thought to the Guild taking a more active part in supporting price maintenance and report in two months' time.

Mr. Davies said that the Executive had given due thought before making the recommendation and should not be asked to go into the matter again. Mr. Davies moved an amendment that a special committee be formed to formulate a recommendation. The amendment was seconded by Mr. Grinlington and carried, thus becoming the motion, which was then carried. Mr. Langtry was nominated by Mr. Grinlington as Chairman of this committee with power to co-opt.

Mr. Lloyd referred to the matter of a store in Ocean Grove selling Chemist-Only lines and said that action should be taken to protect the chemist in the town against Guild contract lines being sold by the store.

Other Committee Reports:—

Lodge and Contract Dispensing: Mr. Gosstray reported that some firms had offered to give a 20 per cent. discount on one order from a number of dispensaries and would deliver to the individual dispensary and charge to one.

Pharmaceutical Publications: Mr. Gandolfo reported that three States—Queensland, Tasmania and Western Australia—had agreed to exchange minutes with Victoria. He reported that the W.A. Branch proposed to ask other States to contribute to the Empire Games Fund, and that in W.A. Leukoplast sales were increasing. He said that in Tasmania the medicines and drug list passed the House of Assembly. The Legislative Council voted that it would temporarily continue for two years. He also reported that in Queensland there had been a change of trading hours within two miles of the city and that 80 per cent. had voted in favour of the change.

He had read the annual report of the Pharmacy Board and the minutes of the Medico-Pharmaceutical Liaison Committee and had nothing to report from these.

Pricing: Mr. Grinlington referred to the recommended discount to nurses and recommended that the 10 per cent. discount be allowed on goods used "in the practice of their profession." There was some discussion on mark-ups and it was moved, seconded and carried that the mark-up on Tourniquets be 66%, on Thermometers 50 per cent., and that the price of Bathroom Scales be cost, plus tax, plus 40 per cent.

Members Re-entered.—Mr. M. Kirsner, Gardenvale, and Mr. B. N. Smith, North Kew.

Honorary Members.—Consideration of the report of the sub-committee appointed to examine this subject was deferred until the February meeting.

Greetings to President.—Mr. Grinlington proposed good wishes to the President and his family for the Christmas and New Year season, and this was supported with acclamation by the meeting.

The meeting closed at 11.30 p.m.

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QUEENSLAND

PERSONAL and GENERAL

State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in Queensland, Miss D. Brighouse, 'phone B 8407.

Miss Dorothy Lennon, of Townsville, is opening a pharmacy at Ingham Road, Garbutt.

Mr. J. G. Taylor opened a pharmacy in the Coolibah Walk Arcade, Sydney Street, Mackay.

Mr. and Mrs. Peter Pierce are now making their home at Armidale, New South Wales.

Mr. J. P. McGuire, of Moorvale, opened his second branch pharmacy during the month. This one has been established at Waterworks Road, Ashgrove.

Miss G. V. Redman, who has been in business at Kingaroy for many years, has sold her pharmacy to Mr. A. S. Angell, formerly of Maryborough.

Miss Thelma Catt has purchased the pharmacy conducted by Mr. H. M. Samuel at Pacific Highway, Surfers Paradise.

Mr. R. Howley, formerly in business at Corinda, has purchased the pharmacy of the late Mr. J. G. Frey at Moggill Road, Taringa.

Engagement.—Congratulations are extended to Mr. Huntley Benjamin, of Wynnum, son of the late Mr. and Mrs. P. M. Benjamin, who has announced his engagement to Miss Jody Dixon, daughter of Mr. and Mrs. E. Dixon, of Ipswich.

R. C. COWLEY INTERMEDIATE AWARD



Miss Anne McGovern—
Winner R. C. Cowley
Award

1961, and good wishes are conveyed to her for the Final Year of her course.

CHEMISTS' WIVES WOMEN'S INTEREST GROUP

As a finale to the year's activities of the Group, a Luncheon, attended by over 100, was enjoyed at the Q.L.T.A. Clubhouse, Milton, on November 29.

The visitors were welcomed by the President, Mrs.

This prize, which is awarded annually by the Pharmaceutical Society of Queensland to the student who gains the highest pass in the Intermediate Examination held during the year, has been awarded to Miss Anne McGovern, of Ashgrove, for the year 1961.

Miss McGovern was educated at St. Finbarrs, Ashgrove, and attended All Hallows, Brisbane, for her secondary education.

She passed the Senior Public Examination in 1959, and became apprenticed to Mr. R. S. F. Greig at the Brisbane Hospital.

Congratulations are extended to Miss McGovern on her success in winning the R. C. Cowley Award for

J. G. Dare, who extended an invitation to those present to participate in the meetings of the Group in the coming year.

The first meeting for 1962 will be held at Drysdale's Chambers on the first Monday morning of March (March 5). Mrs. Dare said she would look forward to meeting many who were present at the Luncheon at meetings during the coming year. Mrs. Dare also conveyed Christmas Greetings and all good wishes for 1962 to those present.

QUEENSLAND CHEMISTS' GOLF CLUB

The final outing of the Club for 1961 was held at Virginia Golf Links on December 3. Competitive events were the Chemists' Golf Club Shield and the Kenneth Mitchell Cup. A very enjoyable day was had by all members. The course, while a little damp in places, was in excellent condition.

The results of the competitions are as follows:—

Chemists' Golf Club Shield: Mr. N. Svendsen.

Kenneth Mitchell Cup: Two players tied in this event, namely K. Campbell and A. G. Asprey. A toss of the coin favoured Mr. A. G. Asprey, as the players decided it would be better to toss a coin than have the play-off in 1962.

Four Ball Competition: L. Martin and M. Nance.

A Grade: Keith Campbell.

B Grade: A. Hartland.

C Grade: E. Bowie.

GOVERNMENT CHEMICAL LABORATORY REPORT

Extracts from the Report of the Queensland Government Chemical Laboratory for the year ended June 30, 1961:

Drugs and Medicines

The work followed the pattern of other years, and 228 samples in all were examined.

Drugs were checked for purity against official standards, and the compositions and claims of new proprietary lines were examined. Medicines were checked for accuracy in dispensing and complaint samples from the public examined. Old stocks of deteriorated dangerous drugs from various pharmacies and hospitals were checked for identification and quantity for record purposes and then destroyed.

No serious issues were involved with any of the samples.

Miscellaneous

The position relative to spray residues on fruit and vegetables was satisfactory, judged by the few complaint samples received.

Two samples of hair dye were condemned because of the presence of paraphenylenediamine in the one and lead compounds in the other.

Samples of fireworks were condemned as unfit for sale under the Poisons Regulations of 1958 because of the presence of arsenic.

Various coal tar dyes were checked by spectrophotometric analyses to ensure purity and conformity with the Food and Drug Regulations.

Toxicology

Of a total of 474 specimens examined during the year, 323 were in connection with 127 post-mortem examinations. The majority of these examinations were at the request of the Coroner.

Poisons found included barbiturate (48), Chloral (4), Strychnine (3), Arsenic (3), Cyanide (2). Of the remain-



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SYDNEY



AUSTRALIA

QUEENSLAND—Continued

ing examinations 54 did not disclose any poison, but were considered necessary to exclude poison as a possible cause of death.

The Police Department submitted 123 specimens of blood and urine for alcohol determination chiefly in connection with road accident investigations.

Five specimens of horse and dog viscera were examined, and four suspected poison baits. Miscellaneous specimens included foodstuffs, anaesthetics, drugs.

Evidence in court was given in a number of cases.

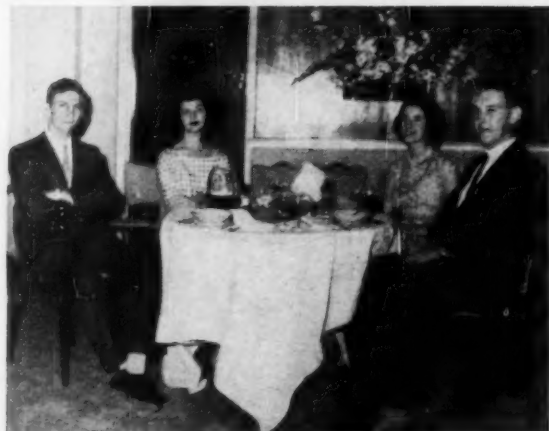
SOCIETY CHRISTMAS DINNER DANCE



Group at Society Christmas Dinner Dance

Over 100 pharmacists, their wives and friends enjoyed the Christmas Dinner Dance, which was held at the Q.L.T.A. Clubhouse, Milton, on November 23.

The President of the Society, Mr. G. R. Wells, and Mrs. Wells received the guests, and during the evening Mr. Wells extended a special welcome to Mr. Alan Bowie, who had recently arrived from Glasgow to take up a position as Demonstrator in the Pharmacy Department of the University.



Another Group at Society Christmas Dinner Dance

CENTRAL QUEENSLAND BRANCH OF THE PHARMACEUTICAL SOCIETY

First Annual Dinner

This function was held in the Tropical Lounge of the Criterion Hotel, Rockhampton, on December 4, when 45 members, associates and wives attended the function which was an outstanding success. The guest of honour was Dr. J. G. Dare, Head of the Pharmacy Department, University of Queensland. Dr. Dare journeyed by air from Brisbane especially to attend this gathering.

Mr. R. H. Fitzpatrick, President of the Branch, and Mrs. Fitzpatrick acted as host and hostess and welcomed those present who included: Mr. and Mrs. E. J. Brock, Mr. and Mrs. R. Deacon, Mr. and Mrs. B. Fitzgerald, Mr. and Mrs. H. P. Fitzpatrick, Mr. and Mrs. H. Muller, Mr. and Mrs. A. F. Sherlock, Mr. and Mrs. G. Dwyer, Mr. and Mrs. M. Williamson, Mr. and Mrs. E. V. Tucker, Mr. and Mrs. W. J. Boreham, Mr. and Mrs. K. Nash, Misses I. Symons, R. Millroy, J. Kingsley, P. Wickham, B. Armstrong, J. Byrne, and Messrs. K. Brumm, C. Talbot, D. Chick, R. Tucker, W. Tennant, J. Boreham, H. Gill, H. A. Symons, B. Bryant, K. Doyle, J. Grayson and R. A. O'Toole.

The Dinner was a memorable occasion, being the first one arranged by the first Branch of the Pharmaceutical Society of Queensland.

In introducing Dr. Dare as guest speaker, the President made mention of the fact that Dr. Dare has only been in Australia a little more than a year, having come from Leeds University, England, to take an appointment as head of the new Pharmacy Department in the Queensland University.

In his address Dr. Dare discussed the modern trend of pharmacy in the light of the findings of the British Pharmaceutical Conference. He spoke of the origin of the Dispensary Regulations soon to be enforced in Queensland and their effect on the status of professional pharmacy of the future.

Dr. Dare also discussed the problems to be faced in the absorption of University graduates into retail pharmacy for a year of practical experience. He expressed the firm belief that these problems could be overcome if both the graduate, with his superior training and scientific knowledge, and the master pharmacist, with his years of practical experience, approached the arrangement with a mutual desire to learn from the other.

Dr. Dare expressed his pleasure at attending the first Annual Dinner, and urged the local Branch to continue its work, making representations when necessary to higher bodies, toward the distant goal of legal government of pharmacy by an internal body within the profession itself.

He said, "Where you have a profession running itself as is the case in England, it is more fairly run, with more discrimination and greater severity than is otherwise the case."

Mr. K. Nash moved a vote of thanks to Dr. Dare for his presence and interesting and highly enlightening address. Mr. Nash, who is the Treasurer of the Central Queensland Branch, and his wife were also farewelled at the function, as they are soon to take leave of the city. Mr. Nash has bought a pharmacy in Childers, and the good wishes of the Society go with him.

The evening concluded with a social gathering, when members availed themselves of the opportunity to meet and talk with Dr. Dare.

QUEENSLAND—Continued

PHARMACEUTICAL SOCIETY

Council Meeting

The Council of the Pharmaceutical Society of Queensland met at Drysdale Chambers, 4 Wickham Street, Brisbane, on November 9, at 8.15 p.m.

Attendance.—Mr. G. R. Wells (President), Dr. J. G. Dare, Misses E. Chalmers, G. Elliot, Messrs. C. G. Caswell, A. M. Grant-Taylor, B. Gainford, R. V. S. Martin, J. S. D. Mellick, J. E. McCaskie, I. M. Young, R. S. Greif, and the Secretary.

Correspondence.—To Mr. G. E. Bourke, Chairman of the Northern Branch, and Mr. R. H. Fitzpatrick, Chairman of the Central Queensland Branch, pointing out that the Branches are offshoots of the parent Society, and as such are covered by the Constitution which requires all pharmacists attending meetings to be members of the Society. This will mean that any pharmacists in the areas who are non-members of the Society will be precluded from attending meetings of the local Branch—the same procedure applies when this Society has meetings. Notices are only sent to those pharmacists who are members of the Pharmaceutical Society. In case they did not have a copy of the Constitution and Rules of the Society, a copy was also sent to each.

To Mr. Cray, letter of sympathy on the death of his father, the late Mr. O. P. Cray, who had been a member of this Society for 62 years.

From "The Australasian Journal of Pharmacy," (a) in regard to suggested science publication, (b) forward-

ing copy of communication sent to Dr. J. G. Dare in reference to scholarships being offered by the Journal in the subject of Applied Pharmaceutical Research, and (c) in regard to illustrations in Journal.

From the Registrar, University of Queensland, seeking the names of the representatives of the Pharmaceutical Society of Queensland on the Board of Studies in Pharmacy for 1962.—Mr. Young and Mr. Caswell were nominated at last meeting to represent the Society.

New Members Elected.—Messrs. J. P. McGuire, Moorooka, and W. M. Williamson, North Rockhampton.

Pharmacy Board.—Mr. Martin reported that the Intermediate Examination was held in October and the results should be available shortly.

Pharmaceutical Education.—Mr. Mellick reported there had been no meeting of the Board of Studies in Pharmacy for some time.

Dispensary Regulations.—The President said that during the month the State Department of Health had called a meeting to discuss the Dispensary Regulations. Dr. Dare and Mr. Young were present from the Society, and Mr. Nichol and Mr. Grant-Taylor represented the Guild. For the information of the meeting, he asked Dr. Dare and Mr. Young to report thereon.

Review of the Pharmaceutical Profession.—Mr. Mellick said about 18 months ago Dr. Thiele, Student Counsellor at the University, commenced a survey of the pharmaceutical profession. Five hundred chemists were communicated with and replies were received from 433. Mr. Mellick said members of the Council might be interested in some of the figures quoted, and he tabled the information for consideration by members interested.

The meeting closed at 11.30 p.m.

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SOUTH AUSTRALIA

PERSONAL and GENERAL

State News

Members desiring publication of personal items of interest are invited to write details to the Journal Correspondent in S.A., Mr. E. F. Lipsham.

Mr. K. S. Martin spent the last week of November and the beginning of December managing for Mr. W. G. Clarke of Colonel Light Gardens.

Mr. A. Eks acted as manager of F.S.M.A. at Ascot Park during the absence on holidays of Mr. H. Frearson.

Mr. N. Minio is now registered as manager for J. C. Freeman's pharmacy in James Place, Adelaide.

Mr. Gerald Ball has returned on furlough from East Pakistan, and is living with his wife and two daughters on the Esplanade, Seacliff. He has rejoined the S.A. Register, as he does not expect to return to East Pakistan until the end of 1962.

Mr. M. Hennosie is recorded as manager at the Kilkenny branch of the Friendly Society Medical Association.

Mr. J. Benzakin (Victoria/Egypt) has resigned his position as manager for A. Lean in Harcourt Gardens and opened a new pharmacy in Para Hill.

Mrs. Gilchrist has in recent weeks acted as manageress for Mr. R. Brougham (Mitcham); Mr. J. Duggin (Kings Park); Mr. H. Evans (Goodwood); Mr. C. Huxtable (Tusmore), and will spend the month of January at Vickers' Pharmacy, St. Peters, assisting Mr. D. Lenthall.

Mr. J. Glaros has joined the permanent staff of the Friendly Society Medical Association.

Mr. F. Chapple is registered as manager for Mr. W. Harrison in his new pharmacy in Elizabeth.

Miss M. Harvey visited Port Pirie for the first two weeks of December to assist Mr. N. Gaunt.

Miss M. Logan acted as reliever for Mrs. H. Clay (nee H. Jenner), manageress of Gryst's Pharmacy, Kingswood, for the last four weeks of 1961 and the first two weeks of 1962.

Mr. J. Rowell is now managing for Mr. W. Eriksen at his original pharmacy in Graymore.

Mr. P. J. O'Reilly spent October and November back in King William Street, Adelaide, alongside the site of his old pharmacy, with Mr. A. Payne, of Chas. Wells & Co. He then took over for two weeks on behalf of Mr. W. Pak Poy, of Graymore.

Mr. W. Hearn has opened a new pharmacy at 476 Payneham Road, Glynde.

Mr. K. Sowry acted as locum at the end of November and beginning of December for Mr. H. Flood, of Secombe Gardens, and Mr. M. Wilson, of Broadview Gardens.

Miss R. Strehlow was in charge of the branch of F.S.M.A. at Hindmarsh during the absence on holidays of the manager, Mr. R. Raud.

Mrs. J. V. Lee acted as locum during January for Mr. H. Evans, of Goodwood, who is making a trip to New Zealand to see his daughter Margaret's baby.

Miss R. C. Rogers has joined the South Australian Register from Victoria.

Mr. R. A. Anderson has resigned his position with the University of Adelaide, and left late in December to take up a senior lectureship in the Pharmacy De-

partment of the University of Sydney. The executive officers of the Board, Council and Guild bade him farewell at a dinner in the South Australian Hotel on Monday evening, December 11.

Messrs. A. Physick and J. Oswald embarked on the "Orcades" on December 26 for a trip of about a year to England and Europe. Mr. Physick completed his relieving engagements by acting as locum for Mr. J. Wurm of Flinders Street, Adelaide, to the middle of November, after which he assisted his father in Hove on a part-time basis.

Marriage.—The marriage of Helen Muriel, daughter of Mr. and Mrs. Clifford C. Jenner, of St. Georges, and Howard Edgcombe, son of Mr. and Mrs. E. Clay, of Hazelwood Park, took place in Tusmore Methodist Memorial Church, Tusmore, on December 12. A reception was held in Tower House, Beaumont. The bride's sister Glenda was bridesmaid, with Miss Margaret Allen.

BIRTHS

Congratulations to:

Tiver.—To Patricia and Lloyd, on November 14, at Naracoorte Hospital—a son.

Schoff (nee Stanfield).—To Pauline and Jim, at Memorial Hospital, on November 19—a daughter (Jane Merryn).

Hayball (nee Maloney).—To Barbara and John, at Glenelg Community Hospital, on December 1—a son (Peter John).

Netting (nee Steen).—To Joy and Keith, at Memorial Hospital, on December 6—a daughter.

Scrivener. To Yvonne and Des, a daughter (Lisa Michelle), on December 10, Glenelg Community Hospital.

PHARMACIST CENSURED BY PHARMACY BOARD

On November 13, 1961, the Pharmacy Board of South Australia held full inquiry into an allegation of unprofessional conduct against a registered pharmaceutical chemist.

Advice had been received from the Department of Public Health that Harry Campbell Reynolds, a registered pharmaceutical chemist, had been convicted on August 7, 1961, in a Court of Summary Jurisdiction at Murray Bridge and found guilty of selling a Third Schedule Poison, namely, Bidormal, contrary to the Regulations under the Food and Drugs Act 1908-1954.

The Pharmacy Board held full inquiry into the matter of the alleged conduct and as to whether it amounted to unprofessional conduct. The hearing was conducted at the Board Room, Devon Court, 6a Dequetteville Terrace, Kent Town, and evidence was taken in support of the allegations.

Mr. Reynolds did not attend the inquiry, but forwarded an explanation in writing. The Board considered the charge and the information placed before it and after deliberation for approximately 90 minutes they found the pharmacist concerned guilty of unprofessional conduct by committing a breach of Regulation 127 (1) of the Regulations under the Food and Drugs Act 1908-1954 by substituting Bidormal, a poison specified in the Third Schedule, for another barbiturate prescribed by a physician.

He was accordingly censured and also ordered to pay within thirty days the legal cost and expenses of inquiring into the matter, viz., £21/5/-.

INSECTICIDES

(Extract from "Parliamentary Debates," Oct. 31 and Nov. 1, 2, 1961.)

Mr. Quirke: In the October issue of the "New Zealand Journal of Agriculture," under the heading "Use of Some Stock Insecticides Prohibited—To be Withdrawn and Compensation Paid," appeared the following article:

The withdrawal from farms and from trade channels of a large number of insecticidal preparations that have been used for the control of parasites on stock and for the control of flies is required under the provisions of regulations recently gazetted. Extensive investigations and testing of livestock products have shown that active ingredients in some insecticides tend to leave residues in the products from treated livestock, and that alternative chemicals now available are much safer to use and do not involve risk of residue. The use on livestock of preparations containing aldrin, dieldrin, benzene, hexachloride, lindane, D.D.T., and methoxychlor is prohibited.

There follows a list of over 100 commercial items on sale in New Zealand that are to be withdrawn; the Government will compensate the people who have purchased them. Has the Minister of Agriculture considered doing this in South Australia? Does he consider it necessary to take such action here in relation to the items I have mentioned?

The Hon. D. N. Brookman: This is a matter on which I should like to give a full reply; I shall get a reply, if possible, tomorrow.

PHARMACY BOARD

Monthly Meeting

The Pharmacy Board of South Australia met at Devon Court, 6a Dequetteville Terrace, Kent Town, on November 20, at 7.45 p.m.

Present.—Mr. D. C. Hill (President) in the Chair, Messrs. L. A. Craig, E. F. Lipsham, R. C. McCarthy, B. F. Mildren, B. L. Reynolds, and the Registrar.

Correspondence.—From Mr. W. Harrison, asking questions regarding pharmacy partnerships (information given by the Registrar in telephone conversation with Mr. Harrison).

To Mr. Nigel C. Manning, of Victoria (signed by the President), referring to his retirement from official pharmacy and paying tribute to his long service to the profession. Acknowledged with appreciation.

From New South Wales Branch of the Guild, regarding registration requirements in South Australia.—Information forwarded.

From Pharmacy Board of New South Wales, asking for copies of new Pharmacy Bill when released in Parliament. Acknowledged, advising not yet released, but will be forwarded when available.

Board Solicitors.—Circular notice from Messrs. Pickering, Cornish & Abbott advising dissolution of partnership as from November 30, 1961, and inquiring if the Board wishes Mr. J. R. Cornish to continue to act when he becomes a partner in the firm of Baker, McEwin, Millhouse & Co. After discussion, it was resolved that Mr. J. R. Cornish continue to act as the Board's solicitor for a period of 12 months, the position to be reviewed at that time based on the Board's experience with the new firm.

Perth P.A.A. Conference.—Consideration was deferred until the December meeting due to pressure of business.

Annual Report of the Pharmacy Board of Victoria.—



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SOUTH AUSTRALIA—Continued

Although Mr. G. L. Burns had forwarded some notes for presentation in his absence, it was decided to defer this matter until the December meeting.

D.D. Control in Tasmania.—Letter from the Director-General of Health Services, Tasmania, asking for South Australian comments on the relinquishing by the Customs Department of control over Dangerous Drugs in Tasmania at retail level; also asking for list of wholesale chemists in South Australia. The information was noted with interest, but the Registrar was directed to forward the correspondence to the State Department of Public Health which administered D.D. Regulations.

Practical Experience Examination.—Mr. Mildren submitted the examiners' report prepared by Mr. Craig and himself. This advised that the six apprentices who had been granted a supplementary examination had passed. The final results showing examination and galenical exercise marks were tabled.

It was then resolved that the usual report on Subject 774 for forwarding to the Registrar of the University of Adelaide be signed by the President and Registrar and forwarded forthwith.

Final Year Students.—Letters to relevant final year students advising that they cannot take charge of a pharmacy prior to being registered by the Board on completion of their indentures and reaching the age of 21.

Organisation of Galenical Exercises.—Consideration of the report of Mr. Lipsham was deferred until the December meeting so that members could examine the statement.

The President briefly outlined the new University Matriculation requirements which would become effective in 1964. The report was received with interest.

Finance.—Accounts totalling £817/7/1 were passed for payment.

Inspections and Actions.—Reports of Metropolitan Inspections were received and examined and the necessary correspondence duly authorised. Metropolitan Inspections were continuing.

Appointment of Inspector.—Letter to Mr. J. Ridge advising him that he has been appointed for a three months probationary period.

Letter to Mr. E. L. Bonython acknowledging receipt of application for leave of absence while overseas and advising that information noted, but no undertaking can be given at this stage regarding the possibility of his re-engagement on his return.

The Registrar reported that he had interviewed Mr. Ridge, who had been instructed in the field by Mr. Bonython. Mr. Ridge was currently carrying out inspections.

Correction of Register—Section 16.—The Registrar reported that, following the procedure set out in Section 16 (1) and (2) of the Pharmacy Act, it appeared to him that several names could be removed by the Board from the Register as no answer had been received to the letters of inquiry, or the letters had been returned unclaimed or unknown by postmen. To enable members to examine the names and make any personal inquiries, positive action was postponed until the December meeting.

Depots.—Letters to Messrs. J. & J. Bourne, J. G. Cox, R. L. Daniel, R. J. Fitzgerald, W. B. Lalor, L. H. Manning, Martin & Johnson, W. M. Murton, C. A. Newson, H. J. Philp, R. J. Tulloch, D. R. Webb and E. F. Williams, advising renewal of depots required for 1962.

Letter from Mr. M. Murton apologising for an inadvertent advertisement regarding a depot. Received and explanation accepted.

Letter from Mr. M. J. Kimber, Victor Harbour, requesting information on depots and items permitted to be sold thereat.



WESTERN AUSTRALIA

PERSONAL and GENERAL

State News

Members desiring publication of personal items of interest are invited to write or telephone details to the Journal Correspondent in W.A., Mr. F. W. Avenell (phone BA 4082).

Mr. T. A. McInnes has opened a branch pharmacy at Busselton. Mrs. D. Bacchus is managing the branch.

Mr. and Mrs. D. A. Woodman, of Innaloo, are passengers to England per "Canberra."

Mr. C. Miller has been appointed to the Fremantle Hospital.

Birth.—Congratulations to **Mr. and Mrs. N. Crump** on the birth of a daughter.

Mr. and Mrs. J. A. Lewis, of Midland Junction, have returned from their holiday in Singapore.

Mr. F. Rowe, of Hay Street, underwent an operation during the month. Mr. B. Moursellas acted as locum at the pharmacy.

Mr. J. Falconer acted as locum at Gnowangerup Pharmacy for Mr. G. M. Lewis, who spent some days in hospital.

Mr. J. D. Peterkin, who recently returned from England, is relieving Mr. E. Coates at Princess Margaret Hospital.

Mr. and Mrs. N. C. Manning and family from Victoria were visitors at the Pharmaceutical Council office on November 29. They were passengers per "Canberra" to England.

Mr. L. G. Cooper, of Fremantle Hospital, has been appointed pharmacist in charge of the newly opened Pharmacy Department at King Edward Memorial Hospital.

Mr. and Mrs. Ron Dymock have returned from their world trip after an absence of two years. (Ron's impressions of pharmacy overseas are published later in this section.)

Mr. B. B. Caldwell, of Morley Park, has been in hospital for some weeks. At the time of writing he was making satisfactory progress. Mrs. M. K. Mitchell and Mr. P. Janney have acted as relievers.

Mr. R. K. Archer has purchased Mr. H. N. Armstrong's pharmacy at Beaufort Street, Perth, and **Mr. H. N. Armstrong** has purchased the pharmacy of Mr. H. C. Jaentsch at Rokeby Road, Subiaco. Mr. Jaentsch intends having an extended holiday overseas.

SALE OF FLUORIDES

Preparations containing Fluorides, which have been on a prescription-only basis, have now been released from this control and placed on Appendix D of the Poisons Regulations. This requires that they be labelled with the words, "This preparation should be used only under medical direction," and with the vendor's name and address.

Dentrifices containing less than 0.5 per cent. of Fluoride are exempt from any requirements.

EXAMINATION RESULTS

Congratulations to the following candidates who passed at the recent examination:—

Entrance: I. D. H. Alexander, P. A. Baartz, J. B. Borushek, R. J. Bresland, G. M. Burns, P. H. Burton, B. A. Cresswell, P. C. Downs, N. K. Gong, D. H. Gordon, J. L. Hardie, D. N. Harwood, J. R. Hayward, D. J. Hewitt, Gillian R. Hull, J. J. Leach, G. F. Lloyd, J. J. Mott, N. M. Moursellas, P. Proud, A. C. Sallur, Lenette Z. Torrance, S. A. Vahala, C. Vander Giezen.

First Year: P. G. Allan, J. A. Berry, L. P. Borserini, R. A. Chambers, G. A. Clark, J. L. E. Collingwood, G. J. Crisp, D. A. Cruse, Suzanne D. Dunbar, D. J. Haigh, D. R. Hoyle, D. Jauncey, Kaye L. Lewis, R. B. Ould, Eileen M. Ozich, Juliana E. Raneri, P. K. Reed, T. Ristic, D. K. Simms, P. J. Stasse, R. A. Steel, V. B. Sunderland, K. J. Taylor, R. R. Thomas, K. D. Wright.

Second Year: A. T. Adams, G. P. Atzemis, R. H. Cherry, Susan E. Clough, J. L. E. Collingwood, B. G. Donegan, B. L. Godwin, P. A. Leach, B. H. Lewis, J. A. Lutz, K. C. Macmillan, R. L. Matthews, K. N. Moore, Helen F. Telfer, Elizabeth J. Vernon, G. F. S. White, M. S. Wood, R. A. Woodgate.

Third Year: M. J. J. Graham, Sheila J. Hardie, K. Hywood, R. G. James, S. G. Kailis, P. Ledger, Freda Levy, D. G. Nickels, B. C. Patman, C. R. Scott, Dhano M. Young.

Fourth Year: L. J. Bonadeo, M. J. Hawkins, D. P. James, R. C. Kernick, B. M. Lynch, R. W. Maxwell, A. D. Proctor, R. J. Sclanders, A. K. Shepherd, Eva Ulmanis, D. C. Urquhart, K. F. Wake, R. Williams.

Awards

Webster Memorial Gold Medal: Eva Ulmanis.
Kodak Prize: Eva Ulmanis.
Parke, Davis Prizes: Eva Ulmanis and R. C. Kernick.
Mayhew Dispensing Prize: D. P. James.
Pharmaceutics—Materia Medica Prize: R. C. Kernick and Eva Ulmanis.
Mrs. Lyons Prize: Dhano M. Young.
Rumbles Bursaries: R. H. Cherry and R. B. Ould.
Faulding Bursaries: V. B. Sunderland, R. J. Bresland, J. J. Mott.
Boots Prize: Eva Ulmanis.
Federation of Women Pharmacists' Prize: Eva Ulmanis.

Pharmaceutical Council Bursary: R. A. Woodgate.

Post-Graduate Fellowship Course

Key to subjects: (1) Financial Management, (2) Psychology I, (3) Retail Management, (D) Distinction, (C) Completed Course.

Barbara A. Beilby, 2; G. A. Bingemann, 1; C. O. Carter, 3; K. M. Kidd 3 (D); G. C. Miller, 2; R. R. Nicholls, 3 (C).

PHARMACY IN LONDON

When we consider that New York is the largest Jewish city in the world, and London has more Bulgarians than any other city, it is not very surprising to discover that London has a permanent population of 60,000 Australians.

A considerable number of young Australians working in the Mother Country are pharmacists who complete their training here and then realise that they have in their diploma the guarantee of a good job in Britain. Although many people imagine that these Australians

WESTERN AUSTRALIA—Continued

go to Britain for extra technical training and experience. I would say that British pharmacists have something to learn from Australian pharmacists as far as *Secundum Artem* in retail pharmacy is concerned. Nevertheless there is much for the business-minded pharmacist from Australia to learn. Only by regarding Australia as a tiny exception to conditions existing in the rest of the world can one see Australia in true perspective. Applying this to pharmacy, it is obvious just how fortunate we are to have our Guild, which engenders a feeling of mutual respect among pharmacists.

In London itself there are nearly as many pharmacies as there are in all of Australia and, naturally, they vary immensely. However, the average English pharmacy is less modern than an Australian pharmacy, but is busier and is much better stocked as a result. The dispensary, that less profitable section of an English pharmacy, does not have a typewriter or a refrigerator, and generally has a poor range of other equipment. Preparations and drugs from the warehouses are so cheap that few are compounded in the pharmacy. This leaves the pharmacist free to spend more time at the front counter. Such items as Simple Syrup and BP ointments are never made up. Due to the large number of prescriptions filled, very comprehensive stocks of finished preparations are kept in stock. Doctors have standardised their prescribing to an amazing degree and seldom is an "original" prescription encountered.

The British National Formulary mixtures are usually very simple. For example:

Aspirin Mixture is

R Aspirin, 7½ gr.

Compound Tragacanth Powder, 5 gr.

Chloroform Water to ½ fl. oz.

and Senega and Ammonia Mixture is

R Ammon. Bic., 3 gr.

Camphorated Opium Tincture, 15 m.

Senega Liquid Extract, 10 m.

Water to ½ fl. oz.

The N.H.S. regulations are most commendably simple. Advertised pharmaceuticals may not be prescribed (e.g., Aspros, Savlon, Elastoplast), but this is virtually the one and only regulation! Any quantity of any medicine is allowable as a benefit, and a two shilling levy is made on all prescriptions. Pensioners and persons of small means get this refunded at any post office. There is no signing for prescriptions, no numbering or entering of prescriptions, no duplicates and no pricing to be done. The scripts are counted at the end of the month, placed in alphabetical order of doctors, and sent off. Undoubtedly the Australian pharmacist draws more on his professional training in helping to run his country's health scheme than does his English equivalent. As many doctors in England do not keep treatment cards, the lack of records all round is lamentable.

In many pharmacies prescriptions are done by unqualified staff. There are various short courses of training conducted to train "dispensers," who, although "unqualified," have sufficient qualifications to work in the many positions offered them. Medical detailers are usually fully qualified pharmacists. Shop girls are relatively rare in London pharmacies, unqualified men usually being preferred.

The D.D. control differs from ours. Amounts used are entered in a register, but no running totals are kept. The D.D. Inspector does not inspect the levels or take stock of the drugs, but examines private D.D. prescriptions which are filed for this purpose. Drug addicts can in fact obtain supplies on the N.H.S. by going to their doctor and hence obtaining help. Thus a drug racket involving large sums of money could not spring up.

Many so-called privately owned pharmacies are owned by unqualified men, and in many cases pharmacists are

employees not having the major say in the buying of goods, etc. The chain pharmacies are usually better looking. Boots' shops in particular are spacious and attractive and do provide a keen and excellent prescription service. However, their shops have some strange Woolworth-like departments selling handbags, stationery, china, garden fertilisers, car radiator anti-freeze and books.

Continental pharmacies seem more purely medical in their aspect, looking more professional and concentrating on the sale of ethicals, most of which can be sold there freely over the counter. In the socialised Scandinavian countries the pharmacies look more like post offices and shun the shop items, concentrating on dispensing only. Cosmetics are sold in special cosmetic shops. In West Germany the companies like Hoechst and Bayer maintain beautiful modern pharmacies. Kleenex, Aspros, the common cosmetics and so many products familiar to us all are ubiquitous in pharmacies everywhere in Europe.

Relievers' wages in England may be as high as £26 sterling a week, which, when one considers that some English workmen rear families on £8 a week, is very good money indeed. The best time to arrive in England is late winter or in spring, as work is difficult to find in winter, when usually only the low-paying companies have work to offer. Australian pharmacists usually join the Overseas Visitors' Club in Earls Court, and live in flats or bed-sitting-rooms in the south-west suburbs of London. Trips can be made around Britain in between relieving jobs and one or two longer tours to the Continent will make any young Australian glad they ventured to this interesting part of the world.—Ron Dymock.

THE PHARMACIST IMAGE

Because the pharmacist has been with us for centuries his presence is generally taken for granted. The public knows too little about the intensive training of the pharmacist compared with other professions. His training in chemistry alone is equivalent to that of a teacher of that subject at the college level.

A pharmacist is more than a purveyor of drugs—he is a member of the team of experts who have been scientifically trained to provide medical care to the people. As a consultant to the prescriber and the custodian of drugs for the community, he is licensed by law to dispense them according to the prescriber's instructions and the requirements of law. "If we did not have the pharmacist, it would be necessary to invent him." These words appear verbatim in the manual we all received from the Food and Drug Administration, an official function of the U.S. Government. It seems unthinkable, then, that a Federal judge supposedly qualified to preside over a Federal court—unbiased in his thinking—would be guilty of allowing himself to be credited with some of the remarks allegedly made by him in the recent trial in California.

I wonder if this judge would allow a prescription for himself to be filled by the soap salesman he compares us to. I think not.

Whether or not we are a profession is not for a Federal judge to say; we will find the answers within ourselves. Professional trust derives from the individuals, co-operating individuals, of which every profession wholly consists. In a health field such as pharmacy, concern with professional stature thrusts beyond a fascination with prestige and social status; for here, lack of professional stature can have implications for the public welfare and ultimately even for the survival of an occupation in its traditional sense.—"Indiana Pharmacist."

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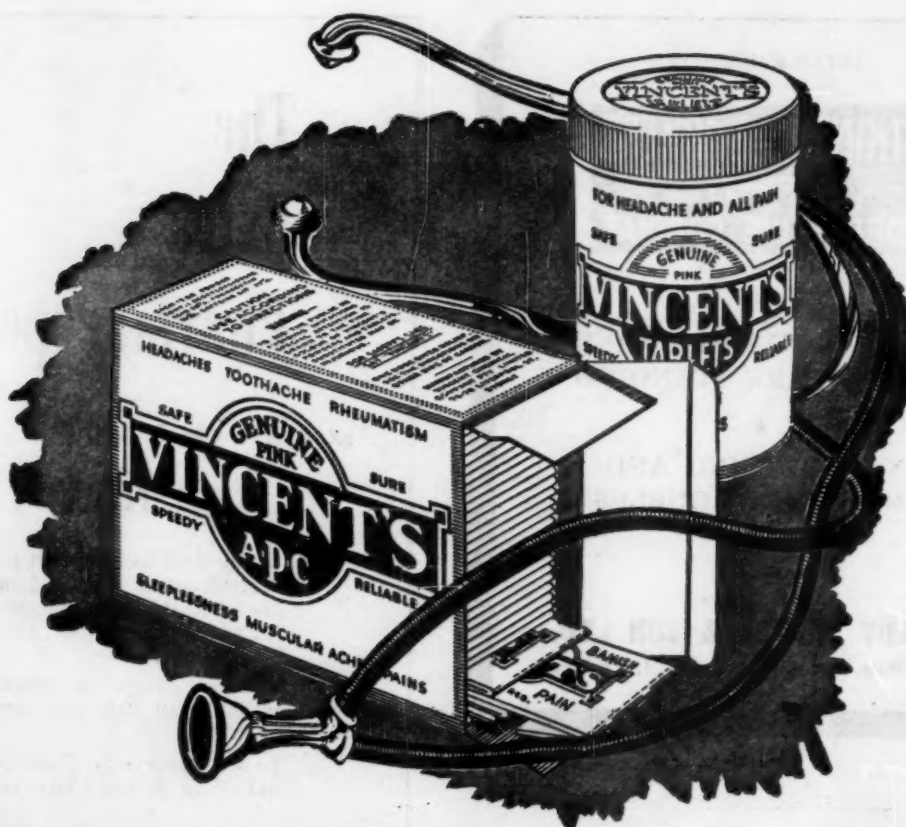
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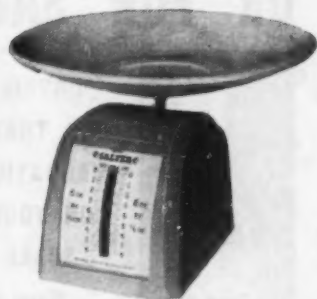
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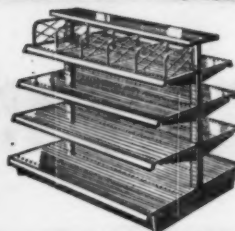


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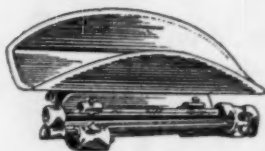
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